NOT TO BE TAKEN AWAY

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SYPHILITIC AFFECTIONS OF BONES MET WITH IN CHILDHOOD.*

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MR. PRESIDENT AND GENTLEMEN,—I have to speak to you to-night of a disease which is only too familiar to all of us, namely, syphilis, and will endeavour to give some account of the ravages committed by this disease and of the different forms it assumes in the bony tissues of the young.

At first sight it would appear inappropriate were I to dilate on the terms "hereditary" or "congenital" and "acquired" syphilis, as they are so familiar to you all, but I feel that I must do so if I am to approach the subject in anything like order. I will say at once, therefore, that these terms, though honoured by use and consecrated by time, are the cumbersome and misleading inheritance of a bye-gone generation. Hereditary or congenital syphilis is a meaningless term. All syphilis is acquired. Some acquire it before birth, some during birth, some soon after birth and some in adult life. Syphilis is the same whatever the age be at which it is acquired. If there is a difference between the results of the disease in early and in

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adult life—and we must all admit there is—where does it lie? The answer is, it lies in the different reaction produced in young and growing tissues on the one hand and in mature well-formed tissues on the other. The only significance that the terms possess is the superfluous suggestion that the child is congenitally young and the adult is of a certain age.

In the adult form the disease can be roughly graded into its three stages owing to the resistance of the tissues; in infancy and childhood the tissues have little resistance to offer, and the disease riots unchecked among them; there is a stage of incubation and after that a jumble of symptoms presents, in which the macular rash and the gumma may be seen at the same time, and the condyloma may disclose the true nature of a bone lesion. This, then, is the reason why many ideas which are gleaned from the study of this disease in adults require careful revision when we come to the diagnosis and treatment of the same disease in children.

Now the most important and durable lesions are those which are met with in the harder structures, namely, the bones and the cartilages, of which the bones at this age largely consist. As they are the most durable structures so also do they show the most constant gradations in their resistance to the disease; in consequence we find that certain manifestations are common at one age and are never seen at another.

If you recall the tuberculous infections of bones you will easily recollect that the majority of them start in the cancellous portions near their extremities in the region of the epiphyses, hence the frequency of joint infections. Syphilis, on the other hand, has a marked partiality for the shaft and ignores the epiphysis almost entirely. A syphilitic joint disease starts in the synovial membrane and therefore is not a true bony lesion, and I shall make no further reference to it. The lesions I intend to deal with are as follows: (1) Epiphysitis (perichondritis); (2) dactylitis; (3) periostitis—(*a*) local, (*b*) general; (4) osteomyelitis (gumma).

Syphilitic epiphysitis from its name seems to be in direct opposition to what I have just said about the epiphysis being ignored, but I only use the term because it is generally employed; the true name of the condition should be "syphilitic perichondritis." The perichondrium or periosteum is affected along the whole length of the bone; it is thickened, and large clear areas may appear in the more osseous portions of the bone as if these had been re-converted into cartilage.

These changes are well seen in the X-ray photographs kindly

lent me by Dr. Hugh Thursfield and Mr. O. L. Addison, to both of whom belongs the credit of recognising the true nature of the lesion which has for so long been called an epiphysitis (Fig. 1). The symptoms are congregated round the joint because it is there that the muscles are inserted into and drag on the perichondrium

Fig. 1.

when movements occur; hence the œdema and thickening are most marked at this place and are probably increased by effusion into the joint. The thickening of the shaft, too, is not so easy to appreciate when the bone lies in the centre of the fat limb of a baby as is the thickening of the ends, where usually the bone is nearer the surface as the muscles have largely given place to tendons. Clinically the

baby is noticed to be feverish and fretful and to cry whenever touched; it is difficult to feed as the handling makes it cry. The mother soon notices that the pain is caused by moving a particular limb, usually one of the upper limbs, and this is followed a few days later by tenderness in the opposite limb or in one of the lower limbs. In the last eight cases of which I have the notes at hand the limbs affected were as follows: one arm alone, three cases; both arms, two cases; one arm and one leg, two cases; both arms and both legs, one case. The humerus, radius and ulna are therefore more often affected than the femur, while the tibia and fibula are comparatively seldom attacked. Of the joints which appear to be painful they are, in order of frequency, the elbow, the shoulder, the knee, the wrist and the ankle. I have never satisfied myself that the hip was affected, though Mr. Addison tells me that in one of his worst cases both hips were tender.

The mother notices not only that movement of the limb is painful but also that the child holds the arm in a peculiar way and never attempts to move it. The arm hangs useless at the side as if paralysed, so that the old name of syphilitic pseudo-paralysis is still sometimes applied to the condition—the term has at all events the merit of implying that the whole limb is affected.

In passing from this form of the disease, as it affects bone at an age when it is scarcely more than embryonic and is largely composed of cartilage, it is worth while noting that the cartilages elsewhere are not immune from attack. A perichondritis of the laryngeal cartilages in the early months of life may prove fatal very rapidly from obstruction to respiration if its true nature is not recognised and if its course is left unchecked. The symptoms resemble those of laryngeal diphtheria in everything except that neither membrane nor bacilli can be found.

In syphilitic perichondritis the age is practically always below six months; in the eight cases referred to above the age ranged from four to fourteen weeks. Other signs of the disease are as a rule visible, rashes, snuffles, condylomata, etc., while the family history of miscarriages is a great help in diagnosis. A baby under eight months old who is brought to hospital with a motionless and tender limb can safely be said to be suffering from one of three things: syphilitic epiphysitis, trauma, or infantile scurvy. In trauma there is a history of a fall; at this age babies cannot fall without the person who picks them up being aware of the fact. There are the signs of injury, such as bruising, and a fracture if present is readily made out.

In infantile scurvy the child is usually well over six months of age;

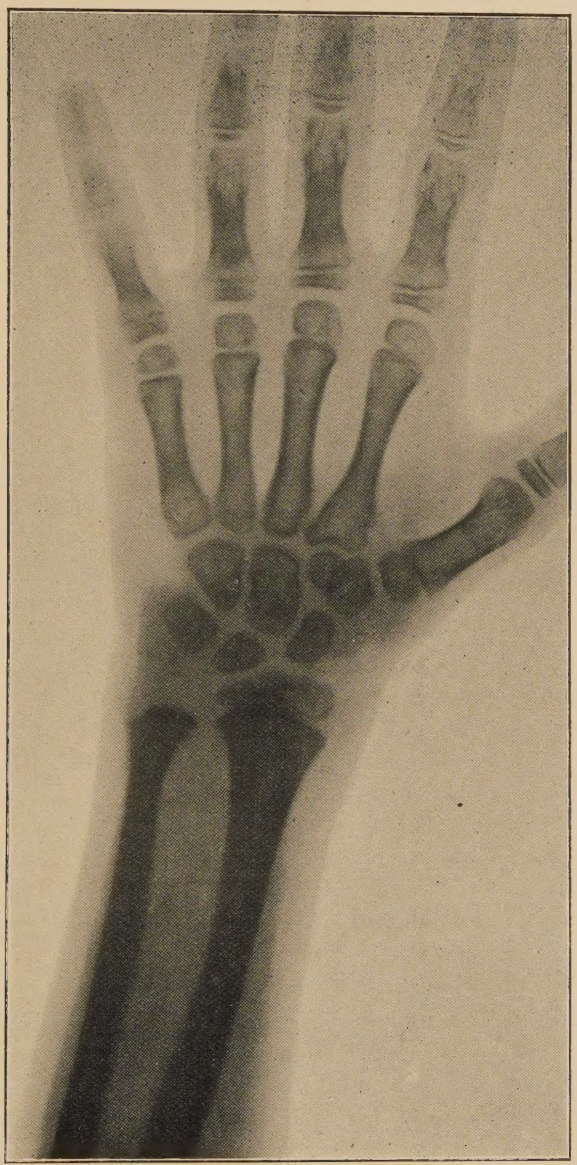

Fig. 2.

the feeding is unnatural, it is either neglected in the poor or governed by fads in the rich. The child may be fat, but looks ill

and is pasty, the gums around the erupted teeth are spongy and may bleed, while the skin may show petechiæ. In advanced cases blood has been passed in the urine or by the bowel. The limb affected is usually one of the lower limbs, and the swelling of the shaft from the subperiosteal hæmatoma is very easily appreciated, and feels very like a sarcoma. There is therefore little difficulty in discriminating between these three conditions.

Syphilitic dactylitis is a condition which is oftener read about than seen. It is one of the rarer manifestations of the disease, and is seldom brought for treatment, as it causes no pain. It is not developed before the second or third year of life, and is not usually seen as young as this.

When well marked the digits of the hand, including the thumb, become beaded in appearance, thicker round the joints than round the middle of the phalanges. In well-marked cases this gives the terminal phalanx a singularly triangular shape. The majority of the interphalangeal joints of both hands are affected. X rays show slight thickening of the adjacent parts of the phalanges, but chiefly on the proximal side of the joint, where a distinct shoulder develops. At these points, too, some rarefaction seems to take place as the shadow becomes less pronounced (Fig. 2). I have never seen the toes affected, nor any of the metacarpal or metatarsal bones involved. The bones never break down nor discharge. In tubercular dactylitis it is the middle of the phalanges which is expanded and becomes thicker than the joints. Commonly one, two, or perhaps three bones are affected, seldom more than four or five. The feet are almost as susceptible as the hands, and the metacarpals and metatarsals are frequently attacked. Tubercle is much the more acute, and rapidly becomes painful; caseation and necrosis is the rule, leaving a deformed and crippled digit. It is rarely seen after the first three years of life. There should therefore be very little difficulty in discriminating between the two forms of dactylitis.

Periostitis is the commonest manifestation of this disease in bones. It may be a local or a generalised condition.

(*a*) In the local form the thickening is confined to a small area of the bone, so that, if the swelling is in a position where it can be felt, it is called a syphilitic node (*vide* Fig. 5). Localised periostitis is seldom seen before the age of four years; indeed, the age of six years is associated in my own mind with the time at which one usually sees it. I think we may take it as certain that some local injury starts a slight periostitis in which the disease settles and keeps up its activity. This accounts for the fact that the node nearly always

forms on the subcutaneous surface of the upper part of the tibia, the

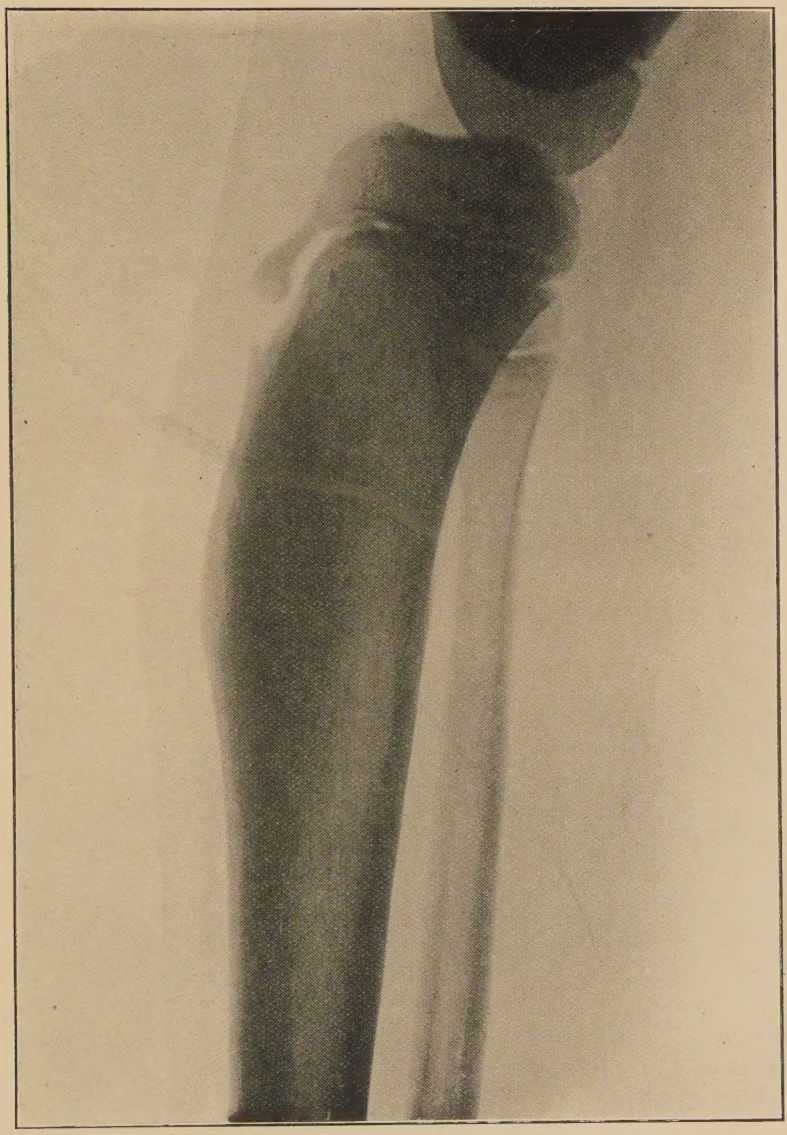

Fig. 3.

place where bruises usually occur in falls. Sometimes the subcutaneous surface of the ulna produces a node for the same reason.

These nodes are not acutely painful, but are tender when firmly pressed upon or knocked. The thickening shades away gradually

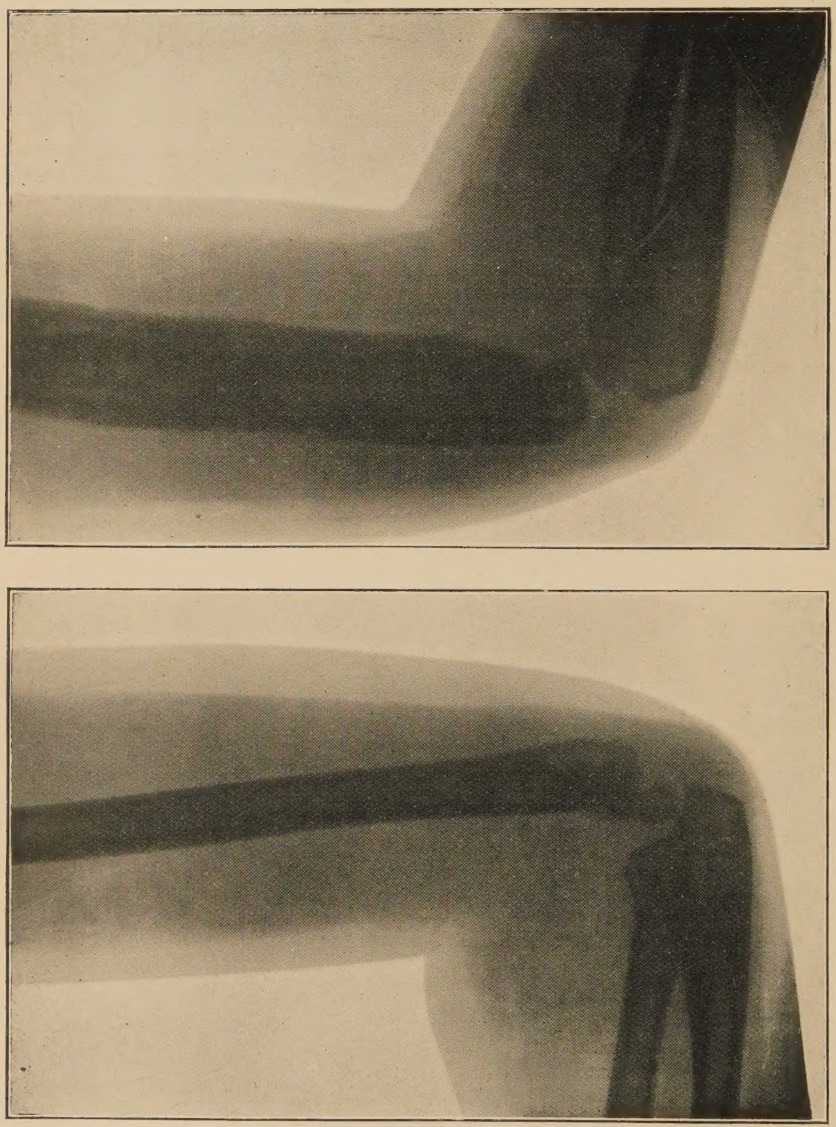

Fig. 4.

into the neighbouring bone, and has no abrupt edge. In nearly all cases, too, it is confined to one side of the bone, and does not surround it like a sarcoma. X rays show the new bone laid down evenly in

layers under the periosteum and elsewhere the bone is normal. In old-standing cases the bone laid down becomes very dense, casting a dark shadow on the plate; but in the early stages it is easily penetrated by the rays, and in the diffuse cases gives an irregular and woolly outline to the bone. As a rule the node is single, but additional evidence should be sought for by an examination of the other long bones, the teeth of the second dentition, and the eyes, both the cornea and the iris. The older the child is when seen, the greater the chance of confirmatory evidence being obtained. In some cases, however, the node may be the only indication—it should be sufficient.

(*b*) The generalised or diffuse periostitis spreads over the whole shaft of the bone, but very seldom encroaches on the epiphysial portion (*vide* Fig. 4). It is a more severe lesion than is the production of a node, and appears on the average at a rather later period of life; nor is it so easy to connect it directly with injury as in the case of the local condition, but occasionally this can be done. I saw one boy in whom, at the age of four years, a general syphilitic periostitis of the humerus followed an attack of erysipelas of the arm. The frequency too with which the tibia is affected is very suggestive of injury. In some neglected cases doubtless a periostitis which was at first local may, if untreated, tend to become diffuse. Sometimes one tibia is affected, sometimes both. Occasionally both upper and lower limb bones are thickened, and, when working with Mr. Pardoe, I saw a girl of twelve in whom all the long bones of both upper and lower limbs were attacked.

The bones are not painful to handle, nor do they incommode the child except at night, when they give rise to a vague uneasy feeling which prompts the child to kick off the bedclothes and lie with the legs exposed to the cool air. Occasionally these osteocopic pains trouble the child in the day-time; this was so in the severe case of a girl with all the long bones involved, for she was sent to hospital from school on account of the pains in her legs; the parents had never noticed anything wrong with them.

If one of the bones of the upper limb is affected, or one of the upper and one of the lower limbs at the same time, it is difficult to imagine anything for which this condition can be mistaken. On the other hand, if one or both tibiæ are affected, rickets is sometimes thought to be the cause. In diffuse periostitis of the tibia the bone assumes certain definite characteristics. It becomes bowed forward in a gentle curve, which is better marked in the upper part of the bone, and is compared with the curve of a sabre. The diffuse

periostitis all round the bone obscures the sharp margins, so that the bone becomes circular in section and the anterior and inner margins are blunted, and the comparison to a cucumber is well deserved. Rickets, on the other hand, causes an antero-posterior curve low down in the bone, so that the leg overhangs the ankle, and usually a lateral curve is to be noted at the same point. The bone is compressed laterally, and the sharpness of the anterior margin is accentuated. On transverse section the buttress-like process behind gives the bone a diamond shape.

The age at which the two deformities appear differs greatly, as the antero-posterior curve in rickets develops before the child has learnt to walk. There is a curious feature which is often seen in the generalised form of periostitis, and that is increased growth in the length of the bone due to the excessive vascularity on the shaft side of the epiphysial plate. When the periostitis is symmetrical this is of no moment, but when only one tibia is affected the difference in the length of the limbs may be $\frac{3}{4}$ in. in my own experience—very likely it often exceeds that limit—so that the sole of the boot has to be raised upon the sound side to equalise the length of the limbs.

In some cases a bone with diffuse periosteal thickening may develop masses of gummatous tissue under the periosteum which become red and tender and eventually break down and discharge; sinuses form, a mixed infection ensues, and the appearance then is not unlike that produced by tubercle. The pathological state of the rest of the bone or of other bones should, however, prevent such a mistake being made.

The last manifestation of this disease I wish to speak of is what may be termed a *syphilitic osteomyelitis*, as in this the whole thickness of the bone is attacked and is replaced more or less completely by gummatous tissue, which may eventually dissolve completely the continuity of the structure without necessarily discharging through the skin (*vide* Fig. 5).

The characteristics of this osteomyelitis differ greatly with the stage in which it is seen. In the early stages it expands the bone in all directions, or to be more strictly accurate it dissolves the interior of the structure while fresh bone is formed beneath the periosteum. The X rays show the soft new bone being formed, while the interior is clear with irregular streaks running through it where the more resistant trabeculæ still remain. Sometimes the destruction is so rapid that it seems as if the bony tissue was replaced by a thin-walled cyst. Doubtless this is the explanation of some of the benign cysts which at the operation are found filled with round-cells and

Fig. 5.

are removed from the humerus or other of the long bones of children (practically all such cases are reported as occurring in children).

The destruction of the interior goes on, as a rule, more rapidly than the formation of new bone externally, so that parchment-like crackling is felt, and if the skin is red over the swelling the classical picture of a rapidly growing sarcoma is reproduced, with perhaps this difference, that the margins of the gumma are not quite so well defined as those of the growth. I remember seeing a case in which a girl of about eight years old had a large, tender, red swelling of the upper part of her leg—obviously an enlarged tibia—in whom the picture of sarcoma was still more complete, for she had what looked like a secondary growth on her frontal bone, syphilitic lesions of the flat bones being, in my experience, excessively rare at this age.

Sometimes X rays show no outline of the bone at all, only patchy shadows remaining where small areas of bone still resist demolition. The fibula is perhaps the commonest bone in which to see these changes carried to their extreme extent. From what I have said it will be readily understood that spontaneous fracture may readily occur. I may mention the case of a girl, aged 16 years, who was sent to hospital because she was developing a curious form of talipes valgus. On examination it was found that a part of her fibula had been completely destroyed for a distance of about 2½ to 3 inches; the gap gave to the fingers a feeling not coarse enough for crepitus, but resembling the feel of a bag of chopped-up hay as the spicules of bone were moved about by the fingers. She had no pain and was quite unaware that anything was wrong with her leg, though worried about the condition of her foot, which was due to the destruction of the peroneal muscles.

There are two other conditions which were thought at one time to be due to syphilitic reaction and are still retained as such in some text-books, although their right to be so regarded is now generally contested; the one is craniotabes and the other is Parrot's nodes.

Craniotabes can be found well marked in nearly all marasmic infants and is due to prolonged malnutrition retarding ossification and actually causing re-absorption of the bone already laid down. It makes no difference whether the marasmic condition is brought about by syphilis or any other cause, and most people nowadays fully recognise this fact. It is a little more difficult to dogmatise on the condition known as Parrot's nodes. It is extremely rare to find them in syphilitic children in whom there is not very unmis-

takable evidence of rickets elsewhere. The nodes are so obviously an exaggeration of the ordinary squareness and bossing of the head which are so characteristic of ordinary rickets that it is difficult to understand the wish to label them as syphilitic. They certainly occur in rickety children, against whom no other suspicion of syphilis can be entertained. Head bossing is better marked in the condition known as hereditary cranio-cleido-dysostosis than in any other and in this the syphilitic factor has no place whatever. It is very probable, then, that in a few years' time both these conditions will have ceased to be classed under syphilis.

Treatment.—Here I must confess that I have little new to offer in the way of treatment, as though I have had considerable experience of "606" in adults I have never given it to children, nor with, perhaps, the exception of two cases should I be tempted to do so had I to treat all my cases over again.

In dealing with the so-called acute epiphysitis in children the first thing to do is to put the limb at rest. The limb is swathed with cotton-wool, and, in the case of an arm, the elbow is bent at a right angle and kept fixed in this position by the application of a light splint made of thin cardboard; in the case of the lower limb the knee is treated in the same way. The clothes are put on with the arm kept close to the chest.

Mercury is administered by giving liq. hyd. perchlor. ɱv in a drachm of cod-liver oil, a mixture babies take very readily. At the same time mercury ointment diluted with an equal bulk of lanoline is used for inunction. In babies the skin is too tender for inunction to be carried out in the ordinary way by rubbing, but absorption is so easy that this is not necessary. A piece of ointment about the size of the terminal phalanx of the little finger is smeared over the abdomen and a flannel binder applied. The child is washed every evening and fresh ointment smeared on and the same binder used for a week at a time—if it does not become soiled there is no need to change it. The whole binder becomes impregnated with mercury, and the acts of respiration, the movement of the abdominal muscles, and the ordinary wriggling movements of an infant are sufficient to cause absorption. The effect of treatment in such cases is extremely rapid. The immobility of the arm relieves the child of practically all its pain, and in three or four days when seen again the tenderness, though still present, is much less; in ten days the limb may be liberated and in three weeks nothing is noticeable. The child should, however, continue to have mercury for its first two years of life. It is stated in books that if left untreated the epi-

physis becomes loose and is discharged, the joint becoming disorganised. I have never seen this occur, nor have I ever seen a child in later life with signs of this having occurred, and now with the knowledge that this is not really an epiphysitis I feel rather inclined to doubt the latter part of the statement, though I have known the epiphysis to separate from the shaft. With regard to older children the same lines of treatment may be adopted; my experience is that it is better to give them a good course of mercury by the mouth in cod-liver oil in conjunction, in severe cases, with inunction, and then later to combine the mercury with small doses of potassium iodide. I have never met a case which was intolerant of mercury in any way, and most children react to the drug with marvellous rapidity. I have heard it said that when large doses of mercury are given to small children there is some risk of kidney irritation ensuing if a careful watch is not kept. I have seen this occur in adults where a suicidal dose of corrosive sublimate has been taken, but have had no experience of it in children who are taking medicinal doses; still, it is a thing which should be kept in mind. In the child I have already referred to, who had a syphilitic osteomyelitis of the tibia and a softened gumma on the forehead, the local signs settled down at once, and the gumma on the head, though quite soft when first seen, resolved, without discharging through the skin, so that a month later there was nothing to be seen on the forehead. The activity of the disease in the bones is arrested rapidly, and the bone, if destroyed, begins to re-form, while in the local and diffuse periostitis cases the new bone is partly absorbed, the remainder becoming sclerosed, so that a thick, hard, painless bone remains. In the young the growth of the limb gradually renders this thickening less and less noticeable; where great thickening has already taken place, as in some of the illustrations, permanent deformity of the bone remains throughout life. If one tibia is longer than the other this will need correction by a corresponding amount being added to the sole of the boot of the normal side. The very few cases which do not seem to react readily to the treatment it is well to admit to hospital so that they can have a thorough course of inunction.

If osteocopic pains persist in the tibiæ perhaps "606" would now enable us to relieve them, but the following excellent method of treatment may still be employed. The skin is incised and the thickened periosteum divided and pushed back, a trench in the long axis of the bone is gouged right down to the medulla, the periosteum is then sewn up with catgut and the wound closed. The trench fills

with blood-clot, which is rapidly replaced with new bone, so that with the exception of the scar no evidence of the operation remains. This is a procedure I can thoroughly recommend. The pains disappear at once with the relief of tension. Where profuse periostitis is accompanied with gumma formation and this has been allowed to discharge and a mixed infection is present, the chronic sinuses which result would, I am sure, be benefited by the injection of "606"; these children would in nearly all cases be about ten years old or older. But as yet I have never had occasion to use this drug in children, being satisfied so far with the older methods of treatment.

TEN YEARS AS DENTAL SURGEON TO A CHILDREN'S HOSPITAL.

By Samuel F. Rose, L.R.C.P., M.R.C.S., L.D.S.Eng.,
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During the past ten years it has been my privilege to act as Dental Surgeon to the Queen's Hospital for Children (known formerly as the North-Eastern Hospital for Children), the second largest children's hospital in London, situated in the Hackney Road, N.E., in the midst of such districts as Bethnal Green, Shoreditch, Haggerston, Hoxton and Hackney, to the poor of which it is as necessary as their daily bread, besides receiving vast numbers of patients from Bow, Stratford, Walthamstow, Tottenham, and other less adjacent neighbourhoods.

As might be expected in such surroundings, where malnutrition is the rule rather than the exception, and where the ignorance of mothers on infant-feeding and management is simply bewildering, caries in the teeth of the young is peculiarly rampant, and the woeful spectacle often presented by the mouth of a mere baby is pitiable in the extreme.

It is no uncommon sight for the upper temporary incisors and first molars to be decayed level with the gum, and perhaps the seat of abscesses, at the age of two years, or even earlier, all treatment but extraction being hopelessly out of the question.

Again, the first permanent molars, which are cut, generally speaking, at the age of six, are found in children of seven or eight with crowns hollowed out like egg-shells and pulps exposed or dead.

Such extreme cases are seldom encountered in private practice,

and must be distinctly referable to the terrible conditions of life prevailing among slum children. It was the recognition of this appalling state of affairs in many of their patients' mouths that prompted the authorities of the hospital, fourteen years ago, to appoint a dental surgeon, the office to be a salaried one, and the duties to include the conservation as well as the extraction of teeth.

No other children's hospital at that time had made such an appointment, so to this hospital is due the credit of a pioneer move in the direction of saving the children's teeth.

Most of the patients seen and treated by the dental surgeon are referred to him from other departments, the physician or surgeon in charge of the case sending the patient on in order that the benefit of a clean and healthy mouth may assist other treatment.

Where adenoids and enlarged tonsils require operation, the mouth is always put in order as a preliminary.

There can be no question that routine attention to the teeth is a most important item in the treatment of disease generally, particularly in cases of gastro-intestinal trouble or faulty nutrition.

There need be only two tender teeth, one on each side in the molar region, for the whole masticating apparatus to be thrown out of gear; whatever chewing is then done will take place on the anterior teeth (which are of course quite incapable of successfully performing the work of molars), food will be bolted, and digestion severely hindered.

Further, the avoidance of certain teeth in chewing produces a thick offensive deposit upon and around them, for healthy, vigorous mastication is Nature's method of cleansing, and the only really effective way with children's teeth; the breath becomes foul, and troubles due to the swallowing of septic matter will arise.

The parents of this class seldom bring children for dental attendance unless there is actual toothache, and as many mouths get into a terrible state with little or no complaint on the part of the patient, many constitutions would suffer irreparable injury, and lives no doubt be lost from chronic septic poisoning and its sequelæ, were it not for the routine examination of the mouth to which patients are subjected.

The indifference of parents to their children's badly carious molar teeth that do not happen to be aching at the time is amazing, whereas they usually observe acutely and point out with much anxiety any trifling blemish or crookedness of a new front tooth, which probably calls for no treatment at all.

The first permanent molar erupts unobserved by the parent, or seen is commonly classed as a first tooth, and as such ignored and allowed to decay like the rest, which it very often promptly does.

Another very common error is for the necrosed and protruding end of a deciduous root to be mistaken for a misplaced erupting permanent tooth, and on this assumption the parent is, with difficulty, persuaded to sanction its removal.

Readers will have gathered from the foregoing remarks that a good deal of extraction has to be done for these children, and this unfortunately is the case. However repugnant it may be and whatever views we may hold as to the effect of early extraction on the development of the jaws or the correct placing and articulation of the permanent teeth, we have no alternative in a large percentage of these neglected dentitions. Pain must be relieved, sources of sepsis must be removed, abscesses must be cured, crippled mastication remedied, and the mouth made clean and healthy, and in a vast number of cases the only means to this end is extraction.

I find that the average number of teeth extracted per child is about three, and as there are upwards of 900 new patients per annum, it will be seen that the forceps are in pretty constant requisition.

The extraction of bad teeth, besides freeing the body from a source of discomfort and pain, and possibly chronic septic poisoning, has a most beneficial effect in preserving the remaining teeth in a healthy state, as it enables mastication to be carried on with normal vigour, so that the teeth are cleansed and gums rendered healthy, and also by freeing the approximal surfaces of teeth previously in contact with decaying companions prevents decay in those surfaces, or even brings about spontaneous arrest of caries already in progress. A long period of immunity from dental troubles may ensue, the patient rapidly gains weight and strength, and the health generally undergoes a marked change for the better.

Now comes the question, "What teeth should be extracted?" and a few remarks on the general rules I have taken for my guidance in deciding this point may not be out of place.

Firstly, I extract all teeth that are a source of sepsis, and this means all teeth (including roots and fragments) in which the pulp or nerve has died, and the interior of the tooth laid open by decay becomes an incubating chamber for bacteria, which with their products escape into the mouth. Such teeth have *deep* cavities, not necessarily large, extending into the pulp chamber and filled with a soft mass of decomposing food, *débris* and organisms: often they

are loose or the seat of abscesses, and impart a marked fœtor to the breath. The gum is never healthy around teeth of this character, but congested and spongy. The molars will often be found in this condition with but little to indicate it on casual inspection, the decay being situated in between, and then usually involving both at the point of contact.

Severe toothache in children, even where the pulp of the offending member is not actually dead, generally necessitates extraction, as the operation of pulp devitalisation and root-filling is far too tedious and trying to be a routine hospital method.

With those unversed in dental matters there is a great tendency to condemn teeth solely because they look black and craggy, and patients often arrive in evident expectation of losing several teeth that are in this state, the parents being much surprised when told it is quite unnecessary. The fact is, that however deep the discoloration, dark brown, or even coal black, it is in itself no indication for extraction.

Caries of this type is often of a superficial character, and in a state of natural arrest, which can be demonstrated by its hardness when probed, and such teeth may act as harmless and efficient masticating organs for a very long time.

It behoves us therefore to examine such teeth carefully, to test the discoloured dentine with a sharp probe, to note whether it is hard or soft, and to ascertain whether there is or is not any extension to the pulp chamber before passing sentence. The condition of the gum and presence or absence of toothache will also help us in deciding.

The point to remember is that it is the implication of the pulp and not the blackness of the tooth that principally matters.

It has always been my practice to use anæsthetics freely in extracting for children. Putting aside the question of humanity, it is a sound policy to make the child's early experiences of dentistry painless; particularly so if the extractions are to be followed straightway by stopping at the next visit.

The routine anæsthetic for dental cases at the Hospital is ethyl chloride, and after several years of experience with it I can safely say that for this purpose it is unrivalled. In nearly every case the anæsthetic period is ample for all the necessary extractions, induction of anæsthesia and recovery are both rapid, and with ordinary care it is very safe. A good colour is nearly always maintained, cyanosis only occurring when there is some respiratory obstruction or refractoriness in breathing.

Out of close on 6000 administrations in the dental department alone there have been no deaths, and hardly any cases giving cause for anxiety, although for the most part the patients were by no means robust, and had had no special preparation for an anæsthetic, being promptly treated at the first visit.

It will, of course, be conceded that these are not the ideal conditions of administration, but the urgencies of aching teeth and poisonous stumps render it unavoidable.

With adults I have had far less experience of this anæsthetic than with children, and consider nitrous oxide both pleasanter and safer, but in the case of children, the quietude and long duration of anæsthesia, and comparative absence of contortions, render ethyl chloride much the more efficacious of the two.

Perhaps its chief drawback is the pungency of the vapour, which causes many children to hold the breath at first or perhaps struggle. On recovery in some cases there is a little vomiting, which could no doubt be to a large extent prevented by suitable preparation beforehand. It is unfortunately by no means uncommon for miscellaneous delicacies to be consumed whilst waiting for treatment.

In my earlier years at the hospital nitrous oxide held an unchallenged position and was used as a matter of course, but it was found quite impossible to complete many cases at the one administration, and this added very considerably to the work.

Another minor drawback was that young inexperienced anæsthetists frequently got into difficulties with the apparatus with surprising results and much waste of gas.

Children's mouths heal well after extraction even in very septic cases, and in individuals of very indifferent physique. Rarely is the healing of a socket long delayed, and then only in certain cases of bad abscesses in the lower permanent molars.

Severe hæmorrhage following extraction is also fortunately rare, and up to now I have escaped "bleeders."

Extractions completed, the patient is told to come again for stopping if such is required, and as, generally speaking, only one tooth can be filled at each visit, several sittings may be necessary before the mouth is in order.

Now the personal equation of our patient becomes of the utmost importance; we can use compulsion in the matter of extraction, but decidedly not in stopping. It is quite impossible to do a stopping for an actively resisting child, and when we realise that persuasion will not answer, there is nothing for it but to abandon the attempt and hope for better luck on a future occasion.

Fortunately with the use of anæsthetics for the painful preliminaries (extractions), it is only now and again that coaxing methods fail, and gradually the child gets more confidence as it finds the proceedings painless, and great care must be taken to ensure their being so.

Children vary as their parental training, or lack of it, and where discipline has been enforced the dental surgeon can do much, whilst the evil practice of spoiling or indulging them will tell with marked effect against the best intentions.

It is very noticeable that the children of alien parents, who attend the hospital in large numbers, yield a large proportion of the unmanageable patients, and this is clearly due to bad parental example, since the mothers are usually excessively nervous and wanting in self-control.

Stopping teeth for children is by no means easy work; their mouths are small, there is great trouble in getting them to keep them open, they are intolerant of any discomfort and soon get fidgety and tired, whilst the activity of their salivary glands is, at times, wonderful, and renders the task of keeping a tooth dry whilst a stopping is inserted a feat to be proud of.

I have found my best patients often enough in little ones of three to five years old, where no painful extractions have been done, and there are no preconceived ideas about dentistry.

The dental engine is used freely in preparing cavities, the general insensitiveness of the temporary teeth rendering this possible, and enabling us to do stopping that will save them for their physiological period.

As I am often asked the question, "Why do you take the trouble to stop the first teeth?" the reasons might be perhaps here mentioned why it is considered necessary. Firstly, because it is highly important for the sake of its digestion that the child should have as many good teeth to chew with as possible; secondly, because the nutrition and development of the jaws and correct placing of the permanent teeth is largely dependent upon the temporary dentition remaining intact for its proper period; and lastly, because a decayed first tooth left untreated will often bring about the decay of an immaculate permanent neighbour at the point of contact.

The most important teeth of the temporary series to preserve are undoubtedly the second molars, and if time presses attention may be limited to them; they are the largest and most useful teeth of the series, and have an early and close relationship with the first permanent molars.

These latter are cut at from six to seven years old, and as soon as they are through require careful examination with a probe to detect any incipient caries in the fissures of the crown. Interstitial caries of the permanent teeth (*i. e.* involving the approximal surfaces) comes later, and there is little of it to be treated till after the age of twelve, which is the hospital age limit.

Saving the permanent teeth is not so difficult a task if the child has had previous experience of stopping, but we must be prepared to find them more sensitive than the milk teeth, requiring still more careful and gentle handling; moreover, the work must be done as thoroughly as circumstances will permit with a view to permanence.

The first permanent molars are remarkably susceptible to caries, and their salvation constitutes the principal part of the stopping work done, but in a lamentably large number of cases decay has gone on too far for the operation to be practicable, and the forceps have to be resorted to. The frequent early loss of these teeth is one of the most striking features of this class of patient.

Defective enamel (hypoplasia), a condition in which the enamel of the permanent teeth is craggy, pitted, grooved or pigmented, is met with in abundance. It represents a life-long impress of some nutritional check or imperfection during the period of calcification.

Little can be done remedially for the children except stopping the deeper pits or crevices, and in some cases applying silver nitrate to the back teeth to check the tendency to superficial caries.

Ulcerative stomatitis is very common in these children. The typical case is unilateral with ulceration of gum, cheek and margin of tongue, soft offensive deposit on teeth of affected side and marked fœtor of breath.

It occurs in states of lowered vitality, and is generally excited by some local irritant, usually a loose septic temporary molar.

The removal of the latter with disinfectant mouth-wash and internal administration of chlorate of potash effects a speedy cure in nearly every case.

A recent paper which the writer had the pleasure of reading before the Children's Diseases Section of the Royal Society of Medicine gives further particulars of this disease as noted in these patients.*

Tooth brushes of an approved pattern and reliable make are now stocked at the Hospital dispensary and retailed to patients at a charge of 2d. each, slightly less than cost price. Papers of instructions are also issued explaining the method of using the

* 'Proc. Roy. Soc. Med.,' 1911, iv (Children's Section), p. 70.

brush, and advising precipitated chalk and Castile soap used together as a dentifrice. Of course everything for these patients has to be absurdly cheap, or there is little likelihood of the advice being followed.

MORBILLIFORM RASH IN A CHILD.

By J. Allan, M.D.

Transient rashes in children are by no means uncommon, and the causation of such often cannot be definitely decided. The following case is one in which a rash similar to that met with in measles developed, the causative factor in which was decidedly obscure. A girl, aged 13 years, had for many years been under treatment for kerato-iritis of the right eye, but this condition had now become quiescent. There was also internal strabismus of that eye, and it was desired that the eye should, if possible, be straightened. Under an anæsthetic (chloroform and ether) tenotomy of the right internal rectus was done. Two days afterwards a rash developed, which is accurately described as morbilliform. It was a perfectly typical measles rash except that the face was unaffected. The child felt rather out of sorts and was inclined to be sick, though she did not actually vomit. Other symptoms were entirely negative—no headache, no temperature, no sore throat, no coryza, no watering of the eyes, etc. The rash disappeared within forty-eight hours and there was no subsequent desquamation.

What was the cause of the rash? Among the possible ætiological factors may be mentioned measles, German measles, food, drugs, and the anæsthetic.

With regard to its being due to one of the exanthemata, I think that most improbable. No doubt many anomalous forms of measles and German measles do occur, but the entire absence of accompanying symptoms seems a strong point against its being either of these. Again, several unprotected children (*i. e.* children who had not previously had measles or German measles) came in contact with the patient and did not develop either of these diseases. There was no history of recent exposure to infection. The child had previously suffered from measles, so that this disease might almost certainly be excluded, seeing that a second attack of measles is not common.

The fact that the face escaped is strong presumptive evidence against its being either of these diseases. After taking into consideration all the points mentioned one may, I think, justly exclude these two exanthemata.

As to a dietetic factor, that is also not a probable explanation. The child was having good plain food, and she had eaten nothing likely to produce a rash.

A post-anæsthetic rash is an occasional occurrence. I have several times seen such develop, but I have not seen one which simulated the rash of measles. All that have come under my notice were scarlatiniform in character, and were in evidence immediately after or within a few hours of the exhibition of the anæsthetic. Now the rash in the case in question did not show itself for two days—a fact which practically vetoes this theory of the causation. Another fact of importance which affords further support against this being the causative factor is that on three other occasions I had given this child an anæsthetic without any subsequent appearance of a rash.

As to drugs, the child was not having medicine internally. She of course had the usual preparatory treatment before the administration of the anæsthetic, and in this case the intestines were acted on by calomel (gr. ij) followed by a saline purgative. We sometimes do meet with cases in which the administration of a cathartic drug produces a rash, often morbilliform in character. But the rash did not develop until three days after the drugs had been taken, and moreover the child experienced this same preparatory treatment at three different times without any result of this nature. Both these points militate strongly against our accepting this cause for the rash. The lower bowel was not cleared out with an enema, so that factor may be dismissed at once. The only other drug that might have been indirectly absorbed into the system was boric acid. After the operation the eye was bathed with boracic lotion (10 gr. to the oz.) every two or three hours during the day, and the question is, could enough be absorbed to produce toxic symptoms in the form of a rash? This explanation may seem a little far-fetched, but it appears to me to be the most feasible of all. During the course of lavage of the ordinary healthy eye there would doubtless be some absorption (infinitesimal in amount) of any drug in solution applied. For a short time after an operation such as tenotomy of an internal rectus there would undoubtedly be greater opportunities for any drug being absorbed, but even in such a case the quantity absorbed could not be large. Here a solution (10 gr. to the oz.) was employed, and probably not more than four ounces were used at each dressing. Of that amount

only a very small quantity could have been taken into the system, so that one would really have to assume a marked idiosyncrasy on the part of the patient. The boric lotion was not stopped, but it is a significant fact that the disappearance of the rash coincided with the reduction of the eye washings to thrice daily.

The Royal Society of Medicine.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

Friday, January the 26th, 1912.

Dr. G. A. Sutherland, *President, in the Chair.*

Cases Illustrating the Late Results of Muscle Transplantation for the Relief of Talipes Valgus (Paralytic).—Mr. Douglas Drew showed these cases mainly to illustrate the tendency to the development of a slight degree of talipes varus as the result of transplanting the tendon of the peroneus brevis on to the tibialis posticus in cases of paralytic talipes valgus. All the cases were well-marked examples of the deformity; in one the deformity was associated with equinus and in another with calcaneus. An interval from one and a quarter to three and a half years elapsed between the onset of the paralysis and the operation for the relief of the deformity. In all the cases the same operation was performed for the relief of the valgus part of the deformity—transplanting the tendon of the peroneus brevis on to the tibialis posticus by passing it across, beneath the tendo Achillis, and over the other tendons at the inner side of the ankle. The operation was most successful in remedying the valgus, but in every instance a slight degree of varus has supervened.

Two Brothers with Hæmophilia.—Dr. Theodore Thompson.—J. D—, aged 10 years, a thin, poorly nourished boy. Symptoms noticed since infancy. Frequent bruising on very slight trauma. Bleeds for one hour if he scratches his hand. Sometimes there is slight bleeding from the mouth, in which there are several carious teeth. On one occasion there was severe hæmorrhage from the gums (1908). For several years has had attacks of pain and swelling in the knees. The left knee was first affected and is now enlarged, and the synovial membrane thickened. The right knee is swollen and there are synovial effusions. No gastro-intestinal hæmorrhages. Coagulation time (Wright's method), five minutes (normal, three minutes).

A. D—, aged 5 years. Stout and well nourished. Extensive bruising of the skin and deeper structures occurs on very slight injury. No bleeding from mouth, nose, or intestines. The only family history of bleeding is on the mother's side.

Case of Cerebellar Tumour.—Dr. Eric Pritchard and Mr. Sydney Stephenson.—Five years ago patient received a blow on the head.

Three years ago he vomited for no apparent cause, and since then he has been subject to intermittent attacks of headache, vertigo, and sickness, which are preceded by optic prodromes, which usually take the form of fortification spectra with a brilliant range of colours. There are no paralyses and no disturbances of a psychical or sensory character beyond those stated. There is slight inco-ordination in walking and Romberg's sign is present. Wassermann negative; von Pirquet negative. History of tubercle in mother's family.

Eyes: Right vision, $\frac{5}{6}$ (two letters); left vision, $\frac{5}{6}$ (six letters). Pupils, 6 mm. to 6·5 mm. Hippus, especially in left eye. The pupils respond to light, both directly and indirectly. When the eyes look straight at an object they jerk slightly up and down. There are also jerking movements on looking inwards, outwards and upwards. Double papillœdema, *i. e.* swelling of each optic disc (summit seen with + 4·0 D. spherical glass) without inflammatory signs or retinitis. The retinal veins are relatively large and the retinal arteries relatively small.

Deformity of the Chest.—Dr. R. C. Jewesbury.—Girl, aged 12 years. The mother first noticed "something wrong" with the right shoulder about ten months ago. There was no pain or loss of power and the general health was excellent. She had a severe fall down fifteen stairs when three and a half years old, and was considerably hurt at the time. Family history good. The upper part of the right side of the chest is much flattened, the first and second ribs are sunken, and bony thickening is felt on these ribs below the clavicle. The pectoral muscles on the right side look wasted, but there is no loss of power. Lungs normal.

Radiogram by Dr. I. Bruce shows deformity of first and second ribs right side. Bony outgrowth from first rib projecting downwards and articulating with similar growth from second rib. Also cervical ribs well developed on right side and rudimentary on the left.

Three Cases of Hemiplegia.—Dr. R. C. Jewesbury.—(1) Boy, aged 4 years. Right hemiplegia and fits, chiefly affecting right side, since birth. Marked atrophy of right side of face, narrowing of right palpebral fissure, weakness of muscles of right side of face, contraction of right pupil and coloboma of right optic disc. (2) Girl, aged 7 years. Left hemiplegia since she was seven months old. Fits of epileptic type, chiefly affecting right side, for last five months. (3) Boy, aged 4 years. Loss of power in right upper limb noticed one month ago. Squint for last six months. Backward boy; speech difficult to understand.

Wassermann negative in all three cases.

Congenital Pulmonary Stenosis without Cyanosis.—Dr. Parkes Weber.—Fairly well built and healthy-looking boy, aged 6 years. He is of very active habits, and there is no cyanosis, dyspnœa, or clubbing of the fingers. Examination of the heart shows that the apex-beat is rather too far to the left (half an inch outside the nipple-line), and that the dulness extends slightly too far to the right. The fact that the size of the heart s somewhat in excess of the normal is confirmed by Röntgen-ray examination. Over the præcordium a harsh systolic murmur is to be heard, with its maximum intensity over "the pulmonary area" to the left of the sternum. The murmur is not carried up into the vessels of the neck. Blood-count (May, 1911): Red cells 4,730,000, and white cells 11,000 to the cubic

millimetre of blood; hæmoglobin 70 per cent. There is no history of rheumatism. The boy's mother died after his birth, apparently from puerperal fever.

Lymphatism.—Dr. E. Cautley.—Boy, aged 6½ years, the eldest of three children. Family history unimportant. Cannot be said to be unduly prone to infectious diseases although he has had measles, varicella and bronchitis. Last year he was under treatment for anæmia. Left testicle undescended. Signs suggestive of lymphatism: (1) The boy is tall for his age. (2) There is a somewhat triangular patch of dulness over the manubrium extending more to the left than the right side with its base upwards. (3) Some general enlargement of the lymphatic glands and spleen. (4) Adenoids and hyperplasia of the circumvallate papillæ. (5) Heart beats slowly, and remains slow although the boy is very frightened. The first sound is loud and rather slurred at the apex (? a small heart and relative aortic stenosis). Red cells 3,200,000, white 50,000 per c.mm. (6) Pupils large and complexion pale. (7) Thin skin with excess of subcutaneous fat.

Shortening of the Left Femur.—Mr. P. L. Mummery.—Boy, aged 7 years. Breech presentation at birth. Left leg 1½ in. shorter than right. X rays showed a very slightly reduced angle of the neck of the femur, with no other deformity but a slight thickening in the neighbourhood of the upper epiphysis. The shortening was probably due to injury at birth to the upper femoral epiphysis. Mr. Mummery proposed to remove a piece of the centre of the shaft of the femur in order to make the legs the same length and to bring the knees level. He would remove slightly more bone than was necessary to correct the length in order to allow for any subsequent difference in development between the two femora.

Specimen of Tuberculous Tumour of the Dura Mater in a Child, aged 14 months.—Dr. E. Cautley.—The patient was the third child, born at term and weighing 10 lb., and breast-fed. The mother had had no miscarriages. Two other children had got pertussis. On November the 7th, 1911, he was admitted to Guy's Hospital for wasting of three months' duration, but did not improve very much. At this time he was weaned. He was admitted to the Belgrave Hospital for Children on December the 27th with a history of slight cough of fourteen days' duration, and general convulsions at mid-day, with cyanosis and loss of consciousness. The temperature at 3.30 p.m. was 97° F., and examination revealed general bronchitis. At 6 p.m. fresh general convulsions occurred, perhaps a little more on the left than the right side, and the temperature rose to 101° F. Next morning the child seemed well. On examining the chest in the afternoon there were definite signs of consolidation of the left upper lobe, most marked in the first and second interspaces near the sternum. The liver was unduly large, and there was distinct evidence of rickets. The case was regarded as one of broncho-pneumonia of the left upper lobe, possibly due to pertussis, though the history of prolonged wasting and the enlarged liver were in favour of tuberculous disease. The child weighed 14 lb. 5 oz., and progressed favourably for ten days, except for loss of weight. On January the 4th he had lost 4 oz. On January the 8th he had lost a further 9 oz. In the evening he had further fits and his temperature rose to 100·6° F. Two days later he had more convulsions and died. Throughout the illness the pulse-rate was unduly high and the rhythm not at all suggestive of a tuberculous affection of the brain.

Autopsy.—Situated under the manubrium sterni, superior to the pericardium and encroaching on the left lung, was a large suppurating tuberculous mass. It had apparently begun as a tuberculous gland in the anterior mediastinum, and, breaking down, had extended into the upper lobe of the left lung, which showed on section tracts of pus and small cavities. The glands in the posterior mediastinum were also enlarged and caseous. Some recent adhesions were present in the left pleural cavity. The abdomen was not examined. Attached to the dura mater, and apparently growing from it, was an irregularly shaped tuberculous tumour about the size of a large hazel-nut. It was situated on the right side and caused a corresponding depression, about $\frac{1}{2}$ in. deep and $\frac{3}{4}$ in. in superficial diameter, in the superior parietal lobule posterior to the ascending parietal lobule. There was no general dissemination of tubercles in the brain or lungs.

The Radical Cure of Inguinal Hernia in Children.—Mr. Philip Turner described the following method which he had used in twenty-five cases.

The external oblique aponeurosis is exposed by a short incision above Poupart's ligament external to the external abdominal ring. An incision $\frac{1}{2}$ in. long is made through the aponeurosis just above the middle of Poupart's ligament. The internal oblique thus exposed is drawn upwards and outwards bringing into view the cord covered by the cremaster just below the internal abdominal ring. After the cremaster has been torn through a blunt dissector is insinuated under the cord and sac, which are drawn through the small incision in the external oblique. The cord is spread out, when the edge of the sac is readily seen and easily separated. It is isolated as far as the internal ring and then drawn upwards and readily shelled out from the lower part of the cord. When completely isolated it is ligatured and removed. The cord is then pushed back into the canal, the internal oblique falls back into position, and the small incision in the external oblique is closed by a few catgut sutures.

The advantages of this operation are—

(1) It is easier to separate the sac just below the internal ring for it is less adherent there to the coverings and constituents of the cord than at or below the external ring. The spermatic vessels are thus less likely to be injured and a post-operative hæmatoma is improbable. Communication between the sac and tunica vaginalis presents no difficulty, for the testicle is easily drawn up into the lower angle of the wound.

(2) The minimum amount of damage is sustained by the inguinal canal. The small incision in the external oblique scarcely opens this structure for it is above the internal ring. Suture of the small wound in the aponeurosis is easy. When the whole canal has been opened up suture in the region of the external ring often presents difficulties. The method can be carried out equally easily in children of all ages and is advocated as a simple way of effecting the essential point of a radical cure, viz. complete removal of the sac with the least possible interference with the inguinal canal and the spermatic cord.

EPIDEMIOLOGICAL SECTION.

January the 26th, 1912.

Acute Poliomyelitis. An Analysis of Sixty-two Cases Occurring in and around Edinburgh in the Epidemic of 1910.—Dr. H. Bruce Low.—The following conclusions were arrived at:

(1) The cases did not present any characteristic symptom, or group of symptoms, in the prodromal period. (2) There was practically no evidence to show that any of the cases were infected by contact with another patient. (3) The nature of the employment of the patient, or patient's father, had no relation to the disease. (4) Abortive cases were not common. (5) The duration of the prodromal period varied from twelve hours to two months. (6) In comparatively few cases was the attack attributed to any definite cause. (7) The distribution of the paralysis in the majority of cases was bilateral. (8) Five per cent. of the cases completely recovered, and in 14·5 per cent. there was no recovery. (9) The duration of the paralysis in the parts which completely recovered varied from three days to six months, but there were parts which were still improving seven months after the onset of the paralysis. (10) The month in which there were the greatest number of cases was also the hottest month of the year, and the month in which there was the highest rainfall. (11) Concomitant symptoms were similar to those in other epidemics. (12) There was practically no evidence that schools were responsible for the spread of the disease. (13) There was no contemporaneous paralysis among domestic animals.

Poliomyelitis in Devon and Cornwall in 1911.—Dr. R. J. Reece.—Prior to September the 16th, 1911, 154 cases occurred, and by December the 16th, 224 cases, which were distributed over twenty-three urban and twenty-six rural districts. With the exception of the ataxic form each of Wickman's eight types was represented. Among 218 cases 131 were males, 87 females; 46·8 per cent. occurred in the first quinquennium, 32·1 per cent. in the second, 9·6 per cent. in the third, 2·3 per cent. in each of the fourth and fifth quinquennia, 2·8 per cent. in the sixth, and at all ages over thirty 4·1 per cent.

Of 218 cases 42 died, a mortality of 19·2 per cent.; of these 14 were in the first quinquennium, 14 in the second, 6 in the third, 1 in each of the fourth and fifth quinquennia, and six were over twenty-five, the highest age being forty-six.

Lumbar puncture was performed in some cases which showed meningeal symptoms but in none was the meningococcus discovered.

The disease was most prevalent in the hot weather and declined after the earth and water temperature had reached the maximum. Groups of cases were met with here and there under conditions consistent with case to case infection, probably direct but conceivably through biting insects. There was a strong suggestion that the healthy carrier might serve directly or indirectly in transferring poliomyelitis to distant and exceptionally isolated dwellings. There was an indication that poliomyelitis might be represented locally, almost entirely by abortive cases which on occasion might be highly infectious.

Dr. Reece concluded by drawing a parallel between poliomyelitis and diphtheria, which on its first introduction to England in the middle of the nineteenth century was a disease of rural districts but had since become also a disease of towns.

It was conceivable that poliomyelitis might take a similar course.

Philadelphia Pediatric Society.

January the 9th, 1912, J. Torrance Rugh, M.D., President.

Fifteenth Anniversary Meeting.

Cold Air in the Treatment of Disease in Children.—Dr. S. McC. Hamill discussed the general principles involved in the application of fresh air to the treatment of disease. He spoke of the former antipathy to the exposure of the sick to draughts and low temperature, and the gradual evolution, first airing rooms, then ventilation, finally constant opening of windows and placing patients in the open air. He reviewed our knowledge of the factors responsible for the destructive effects of shut-in atmospheres, considering carbon dioxide as less important than was formerly believed, laying stress on the bad effects of heat, moisture and still atmospheres, and commenting on the recent suggestive work of Rosenau and Ames, who had demonstrated the presence of organic matter in the expired breath of human beings by applying the reaction of anaphylaxis. Low temperatures were not injurious in their effects so long as the patient was protected from bodily discomfort by the application of a sufficient amount of clothing and bed covering.

Dr. P. J. Milton Miller, of Atlantic City, N.J., discussed cold air in disease of the respiratory tract. This treatment was not new, as it had been in use since the days of Herodotus. The absence of fresh air was known as a cause of respiratory affections. After reviewing the ways in which the cold fresh air acted, Dr. Miller said that he believed it indicated in tuberculosis, pneumonia, chronic bronchitis, fœtid bronchitis, pulmonary gangrene, old empyema and laryngismus stridulus. It was contra-indicated in asthma, emphysema, moist bronchitis, some forms of broncho-pneumonia, laryngitis, the early stages of common cold and influenza. In the respiratory affections of early life the beneficial effects of cold fresh air far outbalanced its defects. The treatment was safe and highly beneficial in these affections, provided judgment, prudence and common-sense were employed in its administration.

Dr. E. E. Graham discussed cold air in the treatment of diseases other than of the respiratory system. He described in detail the manner in which children should be exposed to cold air, laying particular stress on its good effect upon young infants. He advocated its use in tuberculosis, typhoid fever, measles, whooping-cough, anæmia, and the acute gastro-intestinal affections.

Dr. J. P. Crozer Griffith believed in cold air, but while good for many conditions, it could not be good for everything. The cold-air fad was overdone nowadays. He had observed recurrence of illness when a child was deprived

of fresh air, with return to health after the child was again exposed to the cold air. Cases of bronchitis and broncho-pneumonia did better without cold fresh air; many other conditions improved with cold air. Dr. Griffith believed that there was still a place in therapeutics for the croup tent.

Dr. J. H. McKee used cold air in pneumonia and certain toxæmias. He exposed cases of epidemic influenza to cold air as long as they had fever, but never after the temperature fell. Otitis and laryngitis should be protected from cold.

Dr. J. Claxton Gittings spoke of two conditions in particular, broncho-pneumonia with profuse bronchial secretion, and acute bronchitis in children with adenoids. Apart from the irritating effects of cold air upon the air-passages in broncho-pneumonia, the irregular temperature constituted a real difficulty in the cold-air treatment. In croupous pneumonia the temperature was usually high and continuous, while the skin was apt to be dry. The amount of outer covering, which was of such importance, could be easily regulated. In broncho-pneumonia, on the other hand, the temperature was subject to marked fluctuations, and with the fall in temperature there was often found a leaky skin. The problem of proper protection against cold and the avoidance of excessive covering was thus made more difficult. In cases with adenoids, in which acute attacks of coryza were so often followed by infection of the bronchial passages, Dr. Gittings had found that sending the child out into the cold air often greatly prolonged the bronchial irritation. Unless such cases could be treated in bed at an even temperature, without the variations encountered in going from house to street, he often found it best to restrict the child, allowing it the free run of the house but prohibiting trips out of doors. In this way the child would more quickly recover so that the necessary adenectomy could be performed.

Dr. E. J. G. Beardsley stated that during the past five years he had enjoyed a rather extensive experience with the fresh-air treatment of disease in the crowded sections of the city. It had been his experience that the mortality of pneumonia, even in patients who lived in what was usually termed "unfortunate surroundings," was practically *nil* if one could insure an abundant and continuous supply of fresh air with proper food, properly prepared and administered, and could prevent unnecessary medication. He had treated 187 children under twelve years of age with pneumonia without a death, and ascribed the success in a great measure to the fresh air. He had also observed that, if patients with measles or whooping-cough were allowed to have an abundant and continuous supply of fresh air from the beginning of illness, they rarely developed pneumonia.

Dr. F. B. Jacobs spoke of a coloured boy, aged 5 years, with croupous pneumonia, doing well while kept on the roof, who died an hour after being taken indoors. Dr. Jacobs added that he had noticed that some children did better if brought indoors after the fever had disappeared.

Dr. S. Seilikovitch said that he found cold air beneficial in croupous pneumonia but not in broncho-pneumonia. Oxygen was no longer necessary when cold air was used. He did not expose cases of measles to cold air, although he did expose children with whooping-cough. He thought that cases of measles exposed to cold air contracted pneumonia. Broncho-pneumonia cases were benefited by warm, moist air.

Dr. Hamill said that he utilised fresh air in the treatment of disease as he utilised every other remedy which he applied to the treatment of disease, namely, according to the requirements of the individual case; and he believed that anyone who was so devoid of common-sense as to not treat each

patient as an individual had better withdraw from the practice of medicine. He did not agree with those who would exclude fresh air in the treatment of catarrhal conditions of the upper air-passages. He treated these conditions with windows open sufficiently to admit fresh air and keep the atmosphere of the room in motion; and he was perfectly satisfied that his results were better than when he had treated such cases in the vitiated atmospheres of tightly closed rooms.

Dr. Graham believed that care should be exercised in cases of inflammation of the upper air-passages, but a little common-sense would solve many of these problems.

The President then delivered the Annual Address.

Abstracts from Current Literature.

Medicine.

Some common affections of the genito-urinary system in childhood (*'Clin. Journ.,'* 1911, xxxviii, *p.* 209).—**R. Hutchison** considers the following subjects: (1) Anuria: This never lasts longer than twenty-four hours, and is quite harmless. A hot bath and a dose or two of sweet nitre suffice to restart the secretion. (2) Polyuria may occur for brief periods, but if continued should suggest diabetes mellitus or insipidus. (3) Uric acid gravel: The pain may closely resemble intestinal colic. The treatment consists in reducing the amount of food and giving citrate of potash freely. (4) "Uric acid storms": Commonest in children about three or four years of age, often occurring at regular intervals, and showing periodicity. Their occurrence is ushered in by the child being out of sorts for a day or two. There may be an ethereal odour of the breath. The author thinks they are due to functional hepatic disorders. Treatment consists in cutting down the carbohydrates—not the proteins—and the regular use of an hepatic aperient, as rhubarb and grey powder. (5) Vesical spasm: Here citrate of potash and hyoscyamus are useful. (6) Calculus. (7) Infections of the urinary tract due to *Bacillus coli*: This organism may cause a simple bacilluria, cystitis, pyelitis, and suppurative nephritis, which is nearly always fatal. Treatment in all these forms consists in large enemata and calomel in doses of $\frac{1}{10}$ gr. two or three times a day. Citrate of potash is almost a specific in *coli* pyelitis in large doses. In obstinate cases a vaccine should be tried, prepared from the patient's urine. (8) Functional albuminuria: This is of no serious significance, and passes off without damage to the kidneys. The author draws attention to a definite cloud forming in the urine on the addition of acetic acid in the cold alone. (9) Nephritis: This may be acute, tubular, or glomerular; the latter has the most favourable prognosis, and chronic parenchymatous. Spontaneous diuresis may suddenly occur in these latter cases, and all the œdema disappears in a day or two. (10) Vulvo-vaginitis, due to pyogenic organisms or the gonococcus: Thorough irrigation of the parts with saturated boric acid or $HgCl_2$ (1 in 5000—1 in 2000) are essential lines of treatment. In obstinate cases a vaccine may be useful. F. R. B. Atkinson.

Idiopathic enuresis (*'Gaz. des Hôp.,'* 1911, LXXXIV, *p.* 1947).—**A. Collin** considers the following types of enuresis: (1) The prolonged infantile type. Nocturnal incontinence has persisted after infancy has terminated, and will continue until the nervous system has ceased to develop. (2) Digestive form. Here the digestive system is at fault, and the condition is cured by careful regulation of the diet. In both these forms the soundness of sleep is the initial factor; the sounder the sleep the more likely is the enuresis to occur. (3) Emotional form, occurring in children of an excitable temperament. F. R. B. ATKINSON.

Cylindruria (*'Monatsschr. f. Kinderheilk.,'* 1911, X, *p.* 354).—**J. Peiser** describes a case of the above without albuminuria in a child, aged 2½ months, which ended fatally. In some cases it is of little importance, and is only to be considered a symptom of nephritis when other phenomena of disturbed renal activity are noticeable. F. R. B. ATKINSON.

Lordosis and albuminuria in childhood (*'Riv. di Clin. Pediat.,'* 1911, IX, *p.* 493).—**M. Pincherle** has made extensive clinical and experimental observations on this subject. He finds that lordosis is an important factor in the albuminuria of children. Spontaneous lordosis, temporary or permanent, of the upper segment of the lumbar spine, only causes albuminuria exceptionally; there is no relation between the degree of spontaneous lordosis and the elimination of albumin. In some subjects with typical and marked lumbar lordosis it was not possible to determine the albuminuria even by artificially exaggerating the lordosis. Artificially produced lordosis of moderate degree causes, on the other hand, in the majority of instances, a renal reaction both in the vertical and horizontal position. This reaction varies, according to the subject; is least in normal individuals and most in infants predisposed to it by nephritis, recent infective disease, and tuberculosis. The renal reaction to lordosis is characterised by oliguria, albuminuria, and the appearance of renal elements in the sediment, and is directly dependent on the mechanical injury, the general condition of the subject, and the local condition of the kidney. The traumatism of artificial lordosis tends to reproduce the picture of the affection which has been going on in the ordinary system and to bring into prominence its lessened resistance. Hence artificial lordosis may have some diagnostic and prognostic importance in the direction of confirming renal debility. In orthostatic albuminuria of typical course, artificial lordosis produced in the author's cases a marked reaction, with momentary change in the classic type of the albuminuria and with the appearance of various renal elements in the urinary sediment. In certain subjects with serious anæmia, cardiac disease and diphtheria, the reaction to artificial lordosis assumes special characteristics. In a word, lumbar lordosis is an efficient mechanical factor in the genesis of some forms of albuminuria. It does not, however, act as a rule alone, nor in a purely physical manner, but requires to be associated with another important cause, viz. the lessened resistance of the urinary apparatus. In his experiment on animals, the author found that artificial lordosis caused physico-mechanical changes, which induced special modifications in the renal circulation and consequent albuminuria. VINCENT DICKINSON.

The renal functions in the nephritis of children (*'Arch de méd. des Enf.,'* 1911, XIV, *p.* 641).—**P. Nobécourt** and **P. Merklen** describe four varieties of nephritis in children: (1) Simple albuminous nephritis (Cas-

taigne), in which the elimination of chlorides and urea is normal. Albuminuria is the only symptom. There is no œdema nor uræmia. The blood-pressure is but little affected. (2) Nephritis associated with chloride retention. The symptoms are œdema and increase of weight. The œdema is usually limited to the cellular tissue, but it may invade the deeper organs, producing pharyngo-laryngeal œdema, digestive troubles, pulmonary œdema, hydrothorax and visual disturbance. There is often a slight and transient rise of blood-pressure, and cardiac dilatation with or without gallop rhythm. (3) Nephritis associated with retention of urea, which is accumulated in the blood and other fluids of the body, such as the cerebro-spinal fluid. There is no œdema, but loss of appetite and vomiting, torpor and pruritus are the characteristic symptoms. Arterial hypertension is an early symptom, and later cardiac dilatation with gallop rhythm develop. (4) A combined form due to retention of both chlorides and urea. The first two forms are the commonest, and the last two are comparatively rare. Eighteen illustrative cases are recorded.

J. D. Rolleston.

Acute primary nephritis in children (*'St. Louis Med. Rev.,'* 1911, lx, *p.* 235).—**A. Bamberger.**—This is a rare condition. Only eighty-four cases have been reported, including the present one and that of the late Dr. George Carpenter (*vide* British Journal of Children's Diseases, 1907, iv, p. 427). The ages range from birth to three years. Females are most often affected. Cases are most frequent in summer and winter. The mortality is about 50 per cent. Interstitial nephritis is the prevailing type found at autopsy. The most frequent symptoms during life are gastro-intestinal (vomiting and diarrhœa), or nervous (convulsions, restlessness, drowsiness, or coma). Œdema is uncommon. In four broncho-pneumonia occurred, and in one pneumonia. Treatment is that of acute secondary nephritis. Bamberger's case occurred in a girl, aged 3 years, who became feverish and restless, and complained of headache. Temperature 103·6° F. Gastro-intestinal intoxication was at first diagnosed, but a few days later a correct diagnosis was reached by examination of the urine, which was scanty, and contained blood and hyaline and granular casts. The face was waxy, but there was no œdema. Complete recovery took place within two months. During the first month the child was kept in bed on milk diet with potassium citrate internally, and later she was given syrup of iodide of iron.

J. D. Rolleston.

Nephritis in purpura (*'Thèses de Paris,'* 1911 12, *No.* 12).—**E. Roux** arrives at the following conclusions: (1) Nephritis is a fairly common complication of purpura. (2) It appears due to the same causes as purpura, being frequently a toxic infection of digestive origin. (3) As a rule the onset is insidious; less often it is associated with hæmaturia. (4) The nephritis may assume different clinical forms—(*a*) simple albuminous nephritis; (*b*) nephritis with chloride retention; (*c*) nephritis with retention of urea. (5) The prognosis is grave. Some cases may clear up entirely; only a few are fatal, but the majority pass into the chronic stage. (6) The treatment is that of nephritis in general. The basis contains the histories of twenty-seven cases, one of which is original. Of these six recovered, seven died, and fourteen had persistent albuminuria. Twenty were below the age of sixteen years.

J. D. Rolleston.

Nephritis following acute tonsillitis (*'Trans. Am. Laryng. Rhinol. Otol. Soc.,'* 1910, xvi, *p.* 146).—**H. W. Loeb** thinks that acute nephritis following tonsillitis is much commoner than is supposed. The symptoms usually do not appear until some time after the onset of the angina. The nephritis is of the hæmorrhagic type, and is not accompanied by pyrexia, œdema, nor oliguria. Probably many cases of mild nephritis following tonsillitis are overlooked. So-called idiopathic nephritis may be often due to a tonsillitis which has not been considered as an ætiological factor. Finally, chronic affections of the kidney may be due to unrecognised acute attacks of nephritis of tonsillar origin. Four illustrative cases are recorded, one of which occurred in a girl, aged 13 years, daughter of a physician, and was complicated by uræmic convulsions. Recovery took place. Scarlet fever and diphtheria could be excluded in all Loeb's cases. J. D. Rolleston.

Scarlet fever and chronic nephritis (*'Jahrb. f. Kinderheilk.,'* 1911, lxxiv, *p.* 195).— **Stroink** records three cases of contracted kidney following scarlet fever: (1) Woman, aged 20 years, scarlet fever complicated by nephritis when five years old. Slight albuminuria persisted. She was admitted to hospital fifteen years later with œdema and low blood-pressure and died of uræmia. (2) Girl, aged 8 years, scarlatinal nephritis at four years. Three years later œdema occurred and in the following year death from uræmia. (3) Death from uræmia sixteen years after scarlatinal nephritis. The necropsy in all three cases showed well-marked naked-eye and microscopic appearances of contracted kidney. Stroink was also able to investigate the subsequent history of twenty-three cases discharged from hospital with persistent albuminuria after scarlet fever. Beyond albuminuria most showed no severe organic lesions, *e. g.* cardiac hypertrophy, retinitis, dropsy, or hypertension. Some complained of lassitude, headache, pain in the side and giddiness, but most were free from symptoms.

J. D. Rolleston.

Scarlatinal uræmia cured by lumbar puncture (*'Gazz. d. osp.,'* 1911, xxxii, *p.* 1291).—**G. B. Allaria.**—A girl, aged 6 years, developed acute hæmorrhagic nephritis on the eighteenth day of scarlet fever, and twelve days later convulsions, coma, and amaurosis. Twenty c.c. of clear and colourless cerebro-spinal fluid were withdrawn. Coma at once disappeared, but the amaurosis persisted for a few days more. Phlebotomy and the subcutaneous injection of normal saline solution contributed to the child's recovery. J. D. Rolleston.

Renal hæmorrhage in infancy and childhood (*'Jahrb. f. Kinderheilk.,'* 1911, lxxiv, *p.* 452).—**I. Rosenstern** reports five cases: (1) Premature birth with hæmorrhage from mouth, nose, throat, intestine, umbilicus, kidneys and in skin. Recovery after gelatin injections. (2) Incomplete form of Barlow's disease manifested by anorexia, pallor, tenderness of limbs and hæmaturia. Recovery on raw milk. (3) Severe anæmia in premature child, aged 1 year. Recovery after gelatin injections. (4) Chronic hæmaturia following cystitis in an infant, aged 10 months. (5) Rheumatic purpura in boy, aged 14 years, accompanied with acute hæmorrhagic nephritis.

J. D. Rolleston.

On some peculiar forms of hæmaturia in the course of infantile nephritis (*'Riv. di Clin. Pediat.,'* 1911, IX, *p.* 253).—**E. Orsi** (for his thesis) reports five cases. Hæmaturia he considers to be a frequent symptom in the acute and subacute nephritis of children, and may be protracted, not only because it is associated at times with a process of chronic nephritis, but because it may continue as an isolated symptom. These post-nephritic hæmaturias running on for months and years have exacerbations and reappear after seeming to be cured clinically, owing to the supervention of intercurrent ailments, and even from slight disturbances in the physiological equilibrium. They show a tendency to become accentuated by day and diminish or almost disappear at night. Such forms of hæmaturia are met with in subjects who are decidedly tubercular or have an hereditary taint and presumably a latent tubercular focus.

VINCENT DICKINSON.

Renal calculus in infants (*'Virchow's Archiv,'* 1911, CCV, *p.* 335).—**H. Joseph,** in little less than a year, found small calculi post mortem in the renal pelves or calices of forty children in the first two years of life. In twenty-six both kidneys were affected, and in fourteen only one. The calculi appeared as yellowish or brownish-yellow granules or lumps from a pin's head to a hemp-seed in size. Their surface was rough; most could be broken up by firm pressure. All gave the clinical reactions for uric acid. There were no obvious naked-eye changes in the renal parenchyma or pelvis, nor with one exception in which casts were found in the urine were there any symptoms during life to indicate disease of the kidneys or urinary passages. Sixteen had been diagnosed as cases of chronic disturbance of nutrition, sixteen as pneumonia with gastro-intestinal disorders, two as diphtheria, two as staphylococcic dermatitis, three as pulmonary or miliary tuberculosis, and one as meningeal hæmorrhage. The same microscopic changes were found in all, viz. a more or less extensive dilatation of the tubules, which were filled with a peculiar albuminous material. The dilatation often began in the Malpighian corpuscles, affected the convoluted tubules, and in many cases the ascending part of Henle's tubules. The interstitial tissue was usually normal.

J. D. ROLLESTON.

Acetonuria in childhood (*'Lancet,'* 1911, II, *p.* 1264).—**R. S. Frew.**—Of 662 children, aged from a few days to 12 years, admitted to the medical wards at Great Ormond Street Hospital in the course of a year, 408 cases, or 61·6 per cent., showed acetonuria. In the majority of cases this came on after admission to hospital, occurred more frequently in children over two years than under that age, and was unaffected by disease. The carbohydrate starvation necessary for its production is attributed to a temporary failure of digestion caused by the change of diet on admission to hospital. Among the 662 cases were only two cases of diabetic coma, none of post-anæsthetic poisoning, none of cyclical vomiting, and only 22·5 per cent. were associated with definite gastro-intestinal symptoms.

J. D. ROLLESTON.

Acetonuria in diphtheria (*'Münch. med. Wochenschr.,'* 1911, LVIII, *p.* 2153).—**F. Reiche,** during the last two and a quarter years, examined 3826 patients for acetonuria with the sodium nitro-prusside test. In 3200 cases

of diphtheria confirmed bacteriologically acetonuria was present in 65·0 per cent. It was a symptom of the acute stage, lasting only a few days, in many only a single day, in few for a week or longer. It was most frequently found in the first fifteen years of life, in correspondence with the tendency of children to excrete acetone in acute febrile diseases. Its frequency showed a direct relation to the severity of the attack, acetonuria being present in 57·4 per cent. of the mild, 71·1 per cent. of the moderate, and in 80·3 per cent. of the severe cases. In 626 cases of other acute faucial diseases its frequency was as high as 40·2 per cent., so that its presence cannot be regarded as a diagnostic sign between diphtheritic and non-diphtheritic angina. J. D. Rolleston.

Diabetes mellitus following scarlet fever (*'Midland Med. Journ.,'* 1911, x, *p.* 180).—**G. Bryce.**—A girl, aged 6 years, seven weeks after the onset of mild scarlet fever developed great thirst and became rapidly emaciated. The urine had a specific gravity of 1038 and was loaded with glucose. Death occurred in a few days. J. D. Rolleston.

Surgery.

Multiple abscesses in one kidney (*'Med. Record,'* 1911, II, *p.* 749).—**J. Douglas** showed a child, aged 7 years, at the New York Academy of Medicine, on whom he had operated for symptoms of a retrocæcal appendicular abscess, which proved to be an enlarged kidney studded with abscesses. He considers the lesions were due to a pyelitis from colon bacillus infection, the dilated pelvis of the kidney, previous history of cystitis, fever, malaise and lumbar pain assisting him in this conclusion.
F. R. B. Atkinson.

Bilateral nephro-lithotomy for multiple calculi in a boy, aged 8 years (*'Liverpool Med.-Chir. Journ.,'* 1911, xxxi, *p.* 397).—**G. Simpson.**—On November 25 the boy received a blow in the abdomen and suffered pain for some days. On December 1 he began to pass blood, though he exhibited none of the symptoms associated with renal calculus. A skiagram showed the right kidney full of stones. On December 20 lumbar nephrotomy was performed and twenty-six stones removed from a hydronephrotic kidney; the largest stone weighed 42 gr. The boy made a rapid recovery. After an interval of freedom from pain and hæmaturia he was readmitted, and on March 14 the left kidney was explored and four stones removed, the largest weighing 38 gr. The wound healed by first intention, and the patient was discharged on April 5 after a skiagram had shown the kidneys to be free from stones. The stones were formed of uric acid and calcium phosphate, and probably formed round a nucleus of blood-clot following the injury. A *resumé* of similar cases previously reported is also given.
Duncan C. L. Fitzwilliams.

Calculus of ureter in child (*'Sem. méd.,'* 1911, xxxi, *p.* 476).—**Kirmisson.**—A boy, aged 12½ years, who had formerly had urethral calculi, suffered from violent pain in the left kidney, which was swollen. The X rays showed a calculus in the right ureter. Rapid recovery followed

its removal. Cases of this kind are very rare; eighteen have been recorded, all in boys; in eleven the calculus was in the right ureter.

J. D. Rolleston.

The ætiology of cystitis in male infants (*'Jahrb. f. Kinderheilk.,'* 1911, lxxiv, *p.* 684).—**E. Rach** and **A. V. Reuss.**—The disease is more frequent in girls than in boys, due probably to the shortness of the urethra in the former sex. The bacteria may either pass into the blood, then into the kidneys, and from thence to the bladder, or, as seems more likely, pass from the bowel through the vesical wall, presupposing that the epithelium of the bowel has undergone inflammatory changes. The authors describe a case of a baby, about three months old, in whom the *Bacillus bifidus communis* and paracoli bacillus were the cause of cystitis and pyelo-nephritis, and also three other cases, from a consideration of which they believe that cystitis in boys usually results from disease of the bowel.

F. R. B. Atkinson.

Phimosis occurring in three brothers (*'Paris méd.,'* 1910–11, ii, *p.* 232).—**Marx** circumcised three brothers, his attention being drawn to their need of the operation by an attack of epilepsy in one of them. He traced the family history back to a Jewish ancestor, and is of the opinion that circumcision for Jews is a necessity, not a mere religious ceremony, due to the racial trait of consanguineous marriages. Rupert Farrant.

Three cases of maldevelopment of the uterus (*'Austral. Med. Gaz.,'* 1911, xxx, *p.* 580).—**T. G. Wilson** describes a case in a girl, aged 14 years, in whom, on operation, a double uterus with a hæmatocolpos of the left side was found, and in a girl of the same age a small uterus with normal tube and ovary on the right side, and on the left a bigger uterus, and attached to the level of the isthmus of the left uterus a longitudinal swelling running upwards in the position of the left ureter. The third case was in an adult. F. R. B. Atkinson.

Subluxation of the penis (*'Ind. Med. Gaz.,'* 1911, xlvi, *p.* 417).—**N. Rainier** describes two cases in boys aged 14 and 16 years respectively, in which this rare condition occurred, and also five other cases collected from the literature, one of which occurred in a boy aged 6 years, and in another aged 5 years. F. R. B. Atkinson.

An occipital atlas and atlo-axis dislocation (*'New York Med. Journ.,'* 1911, ii, *p.* 640).—**L. L. Thompson** describes a case of a girl, aged 13 years, found dead in suspicious circumstances, in whom the above dislocations were found post-mortem. The former is extremely rare, and the author could only find five other cases in the literature of similar pathological findings.

F. R. B. Atkinson.

Congenital dislocation of the hip (*'Journ. de méd. de Paris,'* 1911, xxxi, *p.* 569).—**Savariaud** gives an account of the methods of treatment that he proposes to adopt in three cases. To the first, a boy, aged 14 years, he will do nothing, as he considers it beyond treatment. Though the dis-

location was unilateral he would not advise a high boot, as he thinks it increases the deformity. The second case, a child aged 18 months, he advises waiting a year, when fixation will be easier and the child will not constantly wet its bandages. He considers the best age for treatment to be between 2–4 years. In the third case, a child aged 3 years, he proposes to reduce the dislocation by manipulation under an anæsthetic and then to put it up in plaster in the flexed and abducted position.

RUPERT FARRANT.

Congenital dislocations of the knee-joint (*'Pray. med. Woch.,'* 1911, XXXVI, *p.* 517).—**R. Kuh** describes a case in a badly developed child, aged 1½ years. The condyles of the femur were easily palpable in the bend of the knee, and the skin was stretched by them. The joint itself was extended; active bending was impossible; passively it could be slightly bent. The sagittal and frontal diameters of the joint were increased. The patella was dislocated upwards and was smaller than on the normal side. Tibia and fibula were slightly dislocated outwards. Anteriorly the top of the tibia could be felt. There was at the same time a well-marked pes valgo-calcaneus. By pressure and counter-pressure on the head of the tibia and the condyles of the femur reduction was easily effected; then the part was put up in splints. There has been no return of the dislocation. Dislocations of this joint are rare compared with those of the hip. The forward dislocation is more common than the backward; but of 128 cases, 54 were on one side, 48 double-sided. The mechanism of its origin is the same as that of a traumatic dislocation, but in congenital cases the mechanical action is not sudden, but constant. Congenital dislocations must be differentiated entirely from genu recurvatum. In recent cases and young children a bloodless operation followed by plaster-of-Paris bandage suffices; in older cases operative interference will be necessary.

M. D. EDER.

Flat-feet in women and children (*'Med. Record,'* 1911, II, *p.* 222).—**S. Epstein** classifies the flat-foot of children into congenital, rachitic and paralytic, and discusses the flat-foot of adolescence, infective flat-foot, and that occurring in child-bearing women. He gives the indications of the lines of treatment that should be adopted in the different cases and in their different degrees of severity. He condemns the corset shoe, and, as supports, favours Whitman's plates, but emphasises the importance of the surgeon himself ordering the exact size, thickness and shape required, and of not leaving it to the judgment of a mechanic. RUPERT FARRANT.

A study of the circulation after the forcible reduction of congenital club-foot (*'Cleveland Med. Journ.,'* 1911, X, *p.* 594).—**W. G. Stern** comes to the conclusion that the anæmia, œdema, etc., following the correction of talipes are due, not to the application of a plaster, but to the direct action of the over-correction. He deduces this result from the injection of two recently dead children with coloured plaster, and noting the differences in the vessels when completely and incompletely corrected.

RUPERT FARRANT.

Removal of the third digital phalanx with formation of a new joint (*'New York Med. Journ.,'* 1911, I, *p.* 988).—**E. Beck** gives an account of a girl, aged 6 years, who developed necrosis of the first phalanx of the index

finger following an injury. He removed the necrosed phalanx, and subsequent contraction led to the formation of a new joint between the metacarpal bone and the second phalanx. RUPERT FARRANT.

Transplantation of a portion of the tibia into the spine for Pott's disease ('*Journ. Amer. Med. Assoc.*,' 1911, LVII, *p.* 885).—**Albee** furnishes a preliminary report on a new method of osteoplasty in the treatment of Pott's disease of the spine. An incision is made over the spines of the affected vertebræ, and each process is split longitudinally for about $1\frac{1}{4}$ in. into two portions with one third of the process on the left and two thirds on the right. The soft tissues between them are separated parallel with the muscles. Greenstick fractures are then produced at the base of the smaller portions of each of the processes, thus forming a space to receive the bone graft. A compress of hot saline is then placed over the wound, and an incision is made over the crest of one of the tibiæ from which a prism-shaped piece about 4 by 1 by $\frac{1}{2}$ in. together with periosteum on two of its surfaces is removed from the antero-internal aspect. The graft is immediately placed in the space between the portions of the spinous processes and the dense fascia sutured over it. Both wounds are then closed. The results so far have been very satisfactory, a firm bony splint with bony union to the vertebræ being obtained which prevents further deformity and helps to arrest the disease.
T. R. WHIPHAM.

Ophthalmology.

Intra-uterine ophthalmia neonatorum ('*Journ. Amer. Med. Assoc.*,' 1911, LVII, *p.* 1285).—Only about 100 cases of the development of gonorrhœal ophthalmia in a fœtus *in utero* have been recorded. **Dorland** here describes one which occurred in his own practice in which infection occurred through a premature rupture of the membranes. The wife of a medical student was admitted into hospital in the first stage of labour, the membranes having ruptured seven days before. Labour was easy and uneventful. When the nurse attempted to instil silver solution into the baby's eyes they were found to be the seat of an advanced gonorrhœal ophthalmia. Greenish pus was exuding in large quantities from each eye, and the conjunctivæ were deeply injected. In spite of treatment one eye became perforated on the following day and was destroyed, while the other showed almost complete corneal opacity from ulceration. The mother, who passed through a normal convalescence, denied all vaginal douching prior to the birth of the child.
T. R. WHIPHAM.

The results of Credé's method in blenorrhœa neonatorum ('*Wien. klin. Rundschau*,' 1911, XXV, *p.* 549).—**Hans Treber** has analysed the cases of blindness due to blenorrhœa neonatorum in the Central Blind Asylum of Munich from 1876 to 1909. Between 1876 and 1892, before Credé's method was in use, the average number of admissions from this cause was 42·9 per cent.; between 1892 and 1909 the percentage of admissions from this cause had fallen to 28·4. Children are admitted to the Asylum from eight years; and Credé's method was introduced into most of the women's clinics at the end of 1882 and beginning of 1883. These figures show that this procedure has had excellent results, which would be even better if this method were used at every birth and became as general as vaccination. Silver acetate in solution is the best drug to use;

it should be applied to every baby at birth, not only in institutions, but equally in private practice, without any exception. M. D. Eder.

A contribution to the study of ophthalmia neonatorum (*'Klin. Monats. f. Augenh.,'* 1911, xlix, *p.* 537, abstr. *'Ophthalmic Review,'* 1911, xxx, *p.* 337).—**R. Bartels** discusses the subject from a bacteriological standpoint, based on the examination of seventy cases of ophthalmia neonatorum. The gonococcus was the chief causative organism, being found in thirty-eight (54 per cent.) cases. A considerable portion of the paper is devoted to the exact differentiation of the gonococcus and related organisms, *Micrococcus catarrhalis* and *Meningococcus intra-cellularis*. Among other organisms found were diphtheroid organisms, pneumococci, streptococci, staphylococci, *B. coli*, etc. The paper ends with some clinical notes, including an account of certain cases in which Credé's method was inefficient as a prophylactic.
J. Allan.

Some unusual manifestations of infection with the Klebs-Loeffler bacillus (*'The Ophthalmoscope,'* 1911, ix, *p.* 95).—**T. Harrison Butler** draws attention to the fact that the diphtheria bacillus may give rise to severe inflammations in the eye which clinically bear no resemblance to diphtheria. One illustrative case given was that of a little girl, aged 8 years, who came under treatment for acute conjunctivitis and pustular eczema of the lower lid (left eye). The child had recently had a whitlow on the right forefinger, and it was thought that the eye infection was staphylococcal. Bacteriologically it was demonstrated that Klebs-Loeffler bacilli were present, with only a few cocci. The child was not in the least ill, and the inflammation soon subsided under treatment with protargol and perchloride lotion. J. Allan.

Chancre of lid (*'Lyon méd.,'* 1911, cxvii, *p.* 651).—**Rollet** and **Grand-Clément** showed at the Société d'Ophtalmologie de Lyon a girl, aged 7 years, with an ulcer 4 mm. in diameter situated on the border of the left lower lid close to the punctum lacrymale. The base was indurated and the submaxillary glands much enlarged. Wassermann positive. Cicatrisation occurred in five weeks without any treatment, and no secondary symptoms appeared, but a month after the chancre had healed double interstitial keratitis developed. The father had general paralysis, but the mother was healthy and had had no miscarriages. J. D. Rolleston.

Spontaneous hæmatomata of orbit (*'Ophthalmology,'* 1911, viii, *p.* 100).—**Brandes.**—A child convalescing from whooping-cough developed exophthalmos in both eyes. Five days later there was a painful pseudo-paralysis and the diagnosis of Barlow's disease was made. Recovery followed change in diet. J. D. Rolleston.

Penetrating injury of the globe with panophthalmitis due to a gas-forming micro-organism (*'Ophthalmic Review,'* 1910, xxix, *p.* 161).—**R. R. James** places on record the case of a boy who was accidentally shot in the left eye from an air-gun. When seen by the author on the day following the accident there was moderate œdema of the upper lid on the left side with slight chemosis below the cornea; the movements of the globe were fairly full. No pain was complained of and temperature was subnormal. There was a long crescentic-shaped wound vertical in position just to the outer side of the mid-line of the cornea, which was of an opaque colour.

No details of the interior of the eye could be made out. On raising the upper lid absolutely clear bubbles of gas were observed issuing from the wound. The eye was at once enucleated, and the boy was discharged five days later with a healthy, clean socket. The bacteriological and pathological findings are fully described. It was demonstrated that the *Bacillus aërogenes capsulatus* was the organism responsible for the infection. J. Allan.

Irido-choroiditis complicating varicella gangrænosa (*'Am. Journ. Derm.,'* 1912, xvi, *p.* 15).—**H. A. Bernstein.**—A girl, aged 3 years, belonging to a wealthy family and with no hereditary history developed right irido-choroiditis during an attack of varicella gangrænosa, the diagnosis of which was confirmed by Abraham Jacobi. There was photophobia, the eyeball was red, the cornea and aqueous were cloudy, and the pupil was obstructed by exudate. Under treatment the photophobia and redness disappeared, and the cornea and aqueous cleared up, but there remained a large mass of organised lymph in the vitreous. The tension of the eyeball was normal, and it seemed possible that if the vitreous opacity was absorbed the eye might recover some useful vision.

J. D. Rolleston.

Ophthalmic zoster (*'Hospitalstidende,'* 1911, liv, *p.* 614).—**Ehlers** exhibited at the Danish Dermatological Society a girl, aged 13 years, who six weeks previously had had hæmorrhagic zoster of the left frontal temporal and cervical regions. The eruption had faded, leaving a typical scar, and had been followed by left ptosis and diplopia due to trochlear paralysis. There was no facial palsy or neuralgia. J. D. Rolleston.

Amaurotic family idiocy (*'L'Echo méd. du Nord,'* 1911, xv, *p.* 437).—**L. Ingelrans.**—Infants previously in good health about the age of six months show commencing signs of idiocy, gradual increasing paralysis of the limbs, and blindness, due to atrophy of the optic nerve. They succumb to general cachexia. It is a rare malady, affecting several members of the same family, and nearly all the cases are in Polish Jews. There are two varieties: the infantile one of Tay-Sachs and the juvenile of Spielmeyer-Vogt. In the latter type there is an absence of the macular lesion that is such a characteristic feature of the former, but this, says Jendrassik, does not separate it from Tay-Sachs disease, as the other symptoms are all present. It has to be distinguished from congenital idiocy with blindness—this is not progressive and not fatal. Hereditary syphilis seems to have no effect in its causation, but this has been stated to be so in other kinds of idiocy, and the Wassermann reaction now shows a positive result in many cases when syphilis had not been suspected from clinical examination. J. Porter Parkinson.

Amaurotic family idiocy (*'Arch. de Neurol.,'* 1911, ii, 9 *sér.*, *p.* 267).—**Naville.**—In a family of Polish Jews, consisting of six children, four girls died of the disease at the age of two years, while the two boys escaped. The disease started in the girls at the age of five to eight months with rapidly progressive blindness, diminution of intelligence, and gradual spastic paralysis of neck, trunk and limbs. In one child observed in the children's clinic at Geneva double optic neuritis was found. When twelve months old she was completely amaurotic, quadriplegic and demented. Death took place at seventeen months from broncho-pneumonia following whooping-cough. At the necropsy no gross lesions in the brain and cord were found, but sections of

the cortex showed the pathognomonic change described by Schaeffer and others consisting in swelling of the nerve-cells, most of which presented cystic dilatations. The cell prolongations also showed dilatations filled with a hyaline and slightly granular substance. This is the second case of the disease that has been observed in a Latin country and the first of which the pathological anatomy has been studied. J. D. Rolleston.

Maculo-cerebral degeneration (familial) (*'Amer. Journ. Med. Sc.,'* 1911, II, *p.* 221).—**E. L. Oatman** describes this condition under two types – (*a*) the maculo-cerebral type, in which both retina and brain are affected, and the (*b*) macular type, in which the retina is alone diseased. He also mentions cases from the literature, as well as his own, of both forms, with excellent diagrams. F. R. B. Atkinson.

A family with a familial form of chorio-retinitis (*'Klin. Monats. f. Augenh.,'* 1911, XLIX, *p.* 699, abstr. *'Ophthalmic Review,'* 1911, XXX, *p.* 339). —**Lutz** describes a form of family choroido-retinitis similar in some respects to that which has been reported by Doyne, but differing in certain of its features. The family consisted of nine children, six girls and three boys; of these, four girls were affected. Both parents were seen and were unaffected. On the father's side all the antecedents for two generations had had good sight; on the mother's side nothing was known of any eye affection, but the data were not so full; there was no consanguinity. In all cases the disease began in the eleventh or twelfth year, and was of rapid onset. Both eyes were affected. Within a few months the vision was reduced to $\frac{3}{60}$–$\frac{1}{60}$. The fundus changes were confined to the posterior pole and consisted of very fine, pale yellow-grey dots, with minute pigmented spots between. In places there was some confluence of the spots into larger areas. Nerve and vessels normal Light sense reduced. No evidence of syphilis or tubercle. Wassermann reaction negative. Urine normal.
J. Allan.

The prevention of myopia in school-children (*'New York Med. Journ.,'* 1911, II, *p.* 237).—**W. H. Bates,** from observations on many thousands of children examined during a period of eight years, formulates the following conclusions: (1) All school-children did not focus accurately writing on the blackboard, or pictures, maps, persons, or other new or strange distant objects. (2) They became myopic when they did not learn to adjust their eyes properly for distant vision. (3) Myopia was prevented by teaching school-children to focus their eyes accurately for distant objects. (4) The Snellen test-card was found to be the best object to use for exercises in distant vision. It was placed permanently in each class-room where all the pupils could see it from their seats. They were encouraged to read daily the smallest letters they could see, with each eye separately, covering the other eye with the palm of the hand in such a way as to avoid pressure on the eyeball. J. Allan.

The conservation of vision (*'Western Med. Rev.,'* 1911, XVI, *p.* 414).—**Frank S. Owen** points out that in the United States there are about 64,000 blind people, and of these about 40 per cent. are cases of preventable blindness. This number is only a small percentage of the people who, though not blind, have defective vision, either as a result of disease or errors of refraction. Some of the causes producing partial or complete blindness and suggested remedies of prevention are discussed. Ophthalmia neonatorum

receives first consideration, and it is pointed out that in certain States it is laid down by law that should one or both eyes of an infant become inflamed, swollen and red, and show unnatural discharge at any time within two weeks after its birth, it shall be the duty of the nurse, relative or attendant in charge of the child to notify this fact to the health authority. If a physician is in attendance it is incumbent on him to notify. That only deals with cases in which the disease has actually developed—far more important are prophylactic measures. The following recommendations were made by a special committee on ophthalmia neonatorum appointed by the American Medical Association: (1) Legal supervisory control and licensure of midwives by the board of health. (2) The distribution by health boards of circulars of advice to midwives and mothers, giving instructions as to the dangers, methods of infection and prophylaxis of ophthalmia neonatorum. (3) The preparation and distribution by health boards of ampoules or tubes containing the chosen prophylactic with specific instructions for its use. (4) Proper statistical records in hospital work. (5) Reports periodically of the obstetrician's private cases. The author deplores the fact that the medical student does not get much training in refraction, and he advocates compulsory training in this work. There should be medical inspection carried out by those well versed in this work. Hygienic conditions at school, good lighting of the schoolroom, and proper desk and sitting accommodation should be attended to. There should be district nurses to visit and advise in suitable cases, such as phlyctenular and interstitial keratitis, etc.

J. Allan.

Tuberculin in tuberculosis of the eye (*'Finsk. Läkar. Handl.,'* 1911, liii, *p.* 298).—**Jaselius** reports nine cases of tuberculous iritis or keratitis treated by new tuberculin (T.R.) or "endotin," a tuberculin made in St. Petersburg. The patient having shown a temperature not exceeding 98·6° F. for two consecutive days, an injection of ·1 to 1 mgrm. was given in the back. If no rise of temperature occurred, a double dose was given on the third day; but if there was the slightest rise of temperature, the dose was not increased nor repeated till the temperature had become normal. A repetition of the dose generally caused a greater rise of temperature than the first dose, and, if so, was taken to prove the existence of tuberculosis. If the first small doses caused no rise of temperature, the dose was increased to 5 mgrm. and 10 mgrm.; if 10 mgrm. repeated produced no reaction, it was taken that tuberculosis did not exist. If reaction occurred, small therapeutic doses were given. The initial dose was at first very small to avoid any dissemination of the disease in feeble and scrofulous children, but further experience showed that the larger doses did no harm, and they were used. During the last two years the opsonic index was not taken as a guide, for better results were obtained by the larger doses regardless of the opsonic index.

J. E. Bullock.

Vaccine therapy in eye diseases (*'The Ophthalmoscope,'* 1911, ix, *p.* 818).—**C. W. G. Bryan** considers the vaccine treatment of various diseases of the eye. Amongst them a case of tuberculous interstitial keratitis in a boy, aged 11 years, in whom tuberculin B.E. commencing with a dose of $_{1\,5}\frac{1}{0\,0\,0}$ mgrm. and increased to $_{4}\frac{1}{0\,0\,0}$ mgrm. gave excellent results. In phlyctenular ophthalmia the author had good effects from a few doses of $\frac{1}{1\,5\,0\,0\,0}$ to $\frac{1}{1\,0\,0\,0\,0}$ mgrm. of tuberculin (preparation not mentioned). The error of refraction nearly always present must be corrected.

F. R. B. Atkinson.

Reviews.

INFANT MORTALITY. Second Special Report by Dr. HELEN MACMURCHY, Toronto. Pp. 54.

DR. HELEN MACMURCHY, who is already so well known by her good work on mentally deficient children, has done even better on infantile mortality.

She begins her pamphlet by emphasising the fact that the question is just as much an economic as a medical question. Do away with the present system of capitalism and wage slavery, and infantile mortality would cease to be a pressing matter. She quotes the statistics of Wolf, who shows that 503 out of 1000 babies born to the working classes die before they are a year old, but only 89 among a similar number of wealthy infants.

In Toronto the infantile mortality is a high one—159 per 1000—due in great part to insanitary conditions which would be a disgrace even to manufacturing England. Several photographs of slum property are introduced, and it came as a surprise to the writer of this review when he observed that the larger proportion of these hovels were built of wood, that pail closets were common, and that rubbish was piled up in heaps in unpaved yards. The water service is bad, only one tap being provided for ten houses!

The report goes on to relate what is being done in other countries. The United States are far behind, and at the present time there is no registration of births. The town of Philadelphia has, however, made great efforts, and has established infant clinics associated with twenty-one voluntary visiting agencies and ten modified milk stations. The great increase in the number of infant deaths in the year 1910 did not affect the area where this beneficent work was carried out.

The question of illegitimacy and its fearful mortality are admirably demonstrated. Empress Catherine II of Russia was the first to build foundling hospitals and otherwise to care for children born outside wedlock. New South Wales has established three partly State-supported homes for illegitimate children, one for ailing and two for healthy infants. A certain number of the mothers can also be accommodated in these institutions, and every encouragement is given to them to suckle their babies. The same government has greatly reduced the infantile mortality from tuberculosis by its Dairy Bills and the general infant death-rate in Sydney by appointing a lady inspector and making it compulsory that all foster children should be taken to the Metropolitan Hospital every fortnight. The Huddersfield scheme and the difficulties of its inception are then graphically described. Huddersfield adopted compulsory notification of births as far back as 1906, and immediately on receipt of the notice the mother and her baby are visited by one of two medical women employed by the municipality. Carefully thought out cards on natural and, if unavoidable, on artificial feeding, are given to the parent. Their work is supplemented by voluntary health workers, who visit, and, if necessary, ask for the advice of the lady doctors should no private practitioner be in attendance. The injurious effect of the mother having to work shortly after confinement is emphasised, but it is interesting to learn that Dr. Robertson, of Birmingham, found most deaths among those infants whose mothers did not work. This was due to the fact that the working mothers can afford more and better milk. The question

will probably be settled by compelling the employer of female labour to supply a room in his factory to which the mother can retire at definite intervals and suckle or feed her child. In the intervals the infants would be under the charge of a trained nurse supplied by the municipality.

C. R.

Education Report of the Minister of Public Instruction, Victoria, for the Years 1909–1910. Pp. 129. Melbourne: J. Kemp. Price 3s. 9d.

This Board controls 2028 schools with a roll of 204,377 pupils. There are in addition 31 centres for manual training and 19 cookery schools, with an average attendance of 2128. Better still, agriculture is practically taught in 400 different schools. These figures speak for themselves, and it is more than creditable that a Board having an attendance-roll slightly less than the whole of Yorkshire can issue so interesting and well-illustrated a report. Even those officials designated by the mysterious letters "H.M.I." have not lost their humanity, and have continued to write entertainingly on education. The dullest and least satisfactory portion of the work is that written by the three whole-time medical inspectors, but even here the English authorities have much to learn from Australia. The schedule of inspection is far fuller than that in use in this country, and will eventually result in an interesting report being produced. The importance of training in hygiene, which is defined as the application of all the sciences to the world's needs, and not as the special province of the teetotaler, is emphasised by the demonstration that teachers so taught are of much more help to the inspector and far more helpful in discovering ailing scholars. Again, it is pointed out that anthropometry is not only of scientific interest, but that it also acts as a stimulus to the interest of the parents, and helps the child in his arithmetic if he compares his own weight with that of his fellows, and then converts his avoirdupois into kilos and grammes. With regard to sanitation, the only suggestions of value are that playgrounds should be used out of school hours, and that each child should be compelled to provide a towel and drinking cup for individual use. There is only statistical reference to the defects found on examination, but these have been thoroughly performed, each child being stripped to the waist. Here again the mother country is outstripped by her colonies.

C. R.

Annual Report of the School Medical Officer for Hampshire, 1910.

Dr. Robert Lyster, who is the author of the most useful and most readable of the text-books on school hygiene, has written a most interesting report for the year 1910. As school medical officer he has the advantage of the assistance of three gentlemen whose remarks are a proof of their intelligence and interest in their work.

The report deals with the examination of 7885 routine cases, and of a certain number of children who were delicate in mind or body. The first thing that strikes one in the report is the very small number of badly nourished children, and this is the more remarkable as quite half of the families have only three shillings a week per head for each member of the household.

The percentage of verminous children is still very high, 19·6 for the entrants and 21·4 for those about to leave, but there has been distinct improvement since medical inspection started. Cases were first brought before the magistrates by the attendance officers, but as one of these was unsuccessful Dr. Lyster or his assistant medical officers now conduct the prosecutions, and are thus able to cross-examine witnesses appearing for the defendants. A prominent position in the report is given to the subject of clothing and boots, and it is stated that a crusade is being made in favour of clogs, but its success or failure is not mentioned. Excellent advice is given as to the right kind of clothing for boys, but not for girls, a point on which several of the younger celibate inspectors need enlightenment.

Only eight cases of phthisis were found, and it is noteworthy that seven of these were in girls. The number of children suffering from enlarged tonsils and adenoids is also low as compared with other areas.

The number of unvaccinated children has increased to a percentage of 7·8 for entrants and 9·7 for leavers.

Dr. Lyster comments on the friendly attitude of the parents, but also instances managers of schools who love vermin too much to prosecute their carriers, and parents who think that the medical inspectors are paid by the percentage of defects they discover.

Drill is not advocated; the medical officer rightly characterises this Teutonic institution as a bore, and advises instead interesting games. Here, as in so many other areas, the teaching of hygiene is neglected; only 84 out of 200 schools investigated gave any instruction on this subject. One of the medical officers, however, has given informal lectures to the children.

As regards amelioration it is stated that care committees have been formed at some of the schools and are doing well, but so far no school nurses or health visitors have been appointed. Yet Dr. Lyster is able to report that 54·6 of all cases recommended have received treatment—a very remarkable result. The assistant school medical officers prescribe glasses for necessitous children, and the County Council has supplied the spectacles at cost price to 415 scholars. C. R.

STAFFORDSHIRE COUNTY COUNCIL: ANNUAL REPORT OF THE SCHOOL MEDICAL OFFICER FOR THE YEAR 1910. Pp. 102. Stafford, 1911.

THIS report deals with the thorough examination of 21,814 children, and is written by Dr. Priestley and the four lady assistant medical officers, with a preface and comments by Dr. George Reid. On the whole it is well done, but Dr. Priestley has unfortunately not the gift of presenting his subject in an interesting manner, and several matters of great interest are omitted or dealt with in an arid or unsympathetic fashion. A word of praise is due to Dr. Moffett, who seems the most clinically minded of all the inspectors. She has carefully percussed the thorax in all children submitted to her for examination, and finds patchy dulness in 5·9 per cent. Usually this condition is not associated with other physical signs, but those who present this abnormality are usually thin and anæmic, and it is commoner in boys than in girls.

Rickets has received thorough attention from the same lady; the percentage of its incidence varies from 20–30 of all cases examined—a fact which shows the necessity for a licencing bill for patent foodmongers.

Ringworm receives very minute attention from Dr. Priestley. He concludes that there are 646 cases in Staffordshire: 193 cases were discovered in 94 out of a total of 369 schools, and by constructing a graph and by estimating that cases are cured in six months he arrives at the total figure for the county. But cases are practically never cured in six months by drug treatment; it is contrary to experience to find so few cases in each school, and it must be common knowledge to most medical inspectors that teachers do not show up cases of this disease, so that several infected children will be missed unless there is thorough inspection by the medical staff. Dr. Priestley advises his committee to admit ringworm children to their schools, and to provide them with caps for use during school attendance. In justice to the parents the experience of dermatologists should be sought before this experiment is tried.

Interesting sections follow on teeth and throat conditions, but Dr. Priestley has made little use of his ample opportunities as regards the study of mental deficiency. C. R.

Annual Report for 1910 to the Rutland County Council Education Committee.

The duties of medical officer of health and school doctor were only taken up by Dr. Christopher Rolleston on June the 24th. To have produced this very complete report by January is a striking testimony to his organising ability and energy. The total number of children examined was 918; among these were 113 "special" cases. Out of 503 inquiries Dr. Rolleston obtained a family history of consumption in 68 children; among these 68, one had signs of consumption. All the 113 special children had defects; of the 757 entrants and leavers, 84·7 per cent. had something amiss, only 78 children being found quite free from defects. We must wait for Dr. Rolleston's next report to learn what resulted from the notification of these defects. The experience of other areas will be probably repeated—an infinitesimal proportion of the children will have received treatment. Dr. Rolleston summarises (pp. 77–78) the available methods of obtaining treatment; the difficulty and hopelessness of the task seem overwhelming when one has to regard poor law relief as offering "some solution of the difficult problem of the treatment of school children found to be defective." The recommendations for the prevention of defective vision are timely. Attention is directed to the colour of the walls, to the type and needlework. Professor Karl Pearson and Miss Barrington's views on eyesight are hardly worth referring to; no one takes them seriously unless it be the authors of the memoir. A careful investigation of the mentally defective has been made; the tests of Binet and Simon have been followed, "to a great extent," in estimating the intelligence of these children; among the 3000 children, 25 were found, and having found them, Dr. Rolleston remarks—"It is a difficult question to know what to do with the children." There is no special school in the county, and the education committee have not adopted the Defective and Epileptic Children's Act. He would like these children sent to residential schools. The hygienic conditions of the Rutlandshire schools are fully reviewed and their deficiencies pointed out. This excellent report concludes with some useful advice, notes on the care of the teeth, impetigo, whooping-cough, and measles. The statement (p. 52) that "the *prose* and dyspepsia of Carlyle were (probably) due to uncorrected errors of refraction" is

perhaps an addition to the printer's errors. *Le style c'est la myopie* is, we are aware, an American eye surgeon's rendering of Buffon, but we thought Dr. Gould (who must, then, have excellent eyesight) stood here alone.

M. D. E.

Rutland County Council. Public Health Report for the Year 1910. By Christopher Rolleston, M.A., M.D.Oxon., M.R.C.P. Lond., D.P.H.Cambridge, County Medical Officer of Health. Leicester: Thornley and Waddington, Printers, Bowling Green Street.

We have received a copy of the above very interesting report, and have found much pleasure in reading it. It is the first annual report on the public health of the county of Rutland, and this should commend it to all interested in such matters. While primarily of value to the public health worker, the report is by no means without interest to those engaged in pædiatric work.

The infantile mortality rate for 1910 was 78·08, and compared favourably with that of counties in the immediate neighbourhood, but was higher than that of other counties of an agricultural character. Diarrhœal diseases contributed chiefly to this rate, and the author makes some pointed remarks on the causes and means of prevention of diarrhœa. He pleads strongly for the appointment of health visitors, who would call at the homes and instruct mothers, and those about to be mothers, on the methods of preventing this very serious ailment.

In some districts within the county the water supply and means of sewage disposal are far from satisfactory, but the health officials appear to be making strenuous efforts to remedy these defects. An important section in the report deals with the housing accommodation, in the course of which the author gives some details of the powers conferred on the Local Government Board and the County Councils by the Housing and Town Planning Act.

Many statistical tables, including the official ones required by the Local Government Board, are given.

J. A.

E. Merck's Annual Report, 1910. Vol. xxiv. Darmstadt. July, 1911. Pp. 419.

This annual report contains a description of the recent advances in pharmaceutical chemistry and therapeutics, besides two long articles on the cacodylates and their therapeutic uses, and kephir. Those interested in the latest productions of the firm and the latest results connected with the use of older drugs will find in the annual much information. There is a good bibliography, which materially enhances the value of the work.

F. R. B. A.

L'insegnamiento della pediatria in Roma. By Prof. L. Concetti, Rome. 1911. Price 5L.

This valuable report contains statistics and records of interesting cases of acute and chronic infections, diseases of the various systems, and new growths observed at the Pædiatric Clinique of the University of Rome during the years 1906 to 1910 inclusive.

J. D. R.